The American Artisan

THE HARDWARE RECORD

Volume 42.—No 11. CHICAGO, SEPTEMBER 14, 1901. $2.00 Per Year.

Quality IS THE FIRST CONSIDERATION WITH A **Progressive Dealer.**

THIS IS WHY HE PREFERS A

DAUNTLESS MALLEABLE IRON & STEEL RANGE

TO ANY OTHER.

INVESTIGATION of the MERITS of the DAUNTLESS will convince you that they are far ahead of other ranges.

KEEP posted regarding the improvements in range construction.

Do not waste time and money with steel ranges which belong to the past.

Handle an up-to-date DAUNTLESS—made of MALLEABLE IRON AND STEEL.

DAUNTLESS RANGES possess distinctive features:

SMOOTH POLISHED TOP, IMPROVED GRATE HOUSING, GRATE INDICATOR, RATCHET DRAFT DOOR, MALLEABLE BACK FLUE, IMPROVED OVEN.

DAUNTLESS RANGES ARE ELEGANT IN APPEARANCE, PERFECT IN OPERATION, OF DURABLE CONSTRUCTION, SAVING IN FUEL.

Dauntless Manufacturing Co., Beaver Dam, WIS.

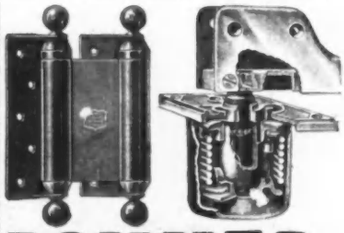
Our Facilities

are unsurpassed by any firm in the United States for the manufacture of

Stove Bolts, Stove Rods, Machine Screws, Pointed Pins, Threaded Wires, Rivets, Special Bolts, Mica Bolts, Cold Pressed Nuts.

We have a large *clientele* among stove men who appreciate our high quality, prompt deliveries and attractive prices. Let us hear from you.

Atlas Bolt & Screw Co., Cleveland, O.



BOMMER SPRING HINGES.

BOMMER BROS. BROOKLYN, N.Y.

A UNIVERSAL REMEDY FOR

LEAKY ROOFS.

The valuable qualities of a good roofing cement are firm adhesiveness and elasticity. These qualities the

AMERICAN SEAL BUILDERS' AND ROOFERS'

ELASTIC OIL CEMENT

possesses. It will adhere firmly to Slate or Metal and will not crack or crumble. It is especially recommended for repairing leaks around chimneys, dormer windows, skylights, scuttles, firewalls and any place that requires fixing on a roof, either Slate, Tin or Shingle.

This **Cement** will answer to repair **a roof** when **Solder** can not be used.

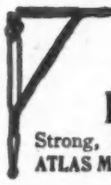
MANUFACTURED BY

Wm. Connors Paint Mfg. Co.

TROY, N. Y.

WESTERN AGENTS—J. L. PERKINS & CO., 241 Lake Street, - - - CHICAGO, ILL.

STOCKHOFF SUPPLY CO., ST. LOUIS, MO.



BRADLEY SHELF BRACKETS.

Strong, Light and All Right.

ATLAS MFG. CO., New Haven, Ct.

THIS SPACE FOR SALE

INQUIRE OF OWNER,

DANIEL STERN, 69 DEARBORN ST.,

CHICAGO.

Black Diamond Files and Rasps.

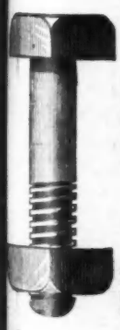
PERFECT—ALWAYS

Twelve Medals Awarded.

At International Expositions.

G. & H. BARNETT CO.,

Black Diamond File Works. PHILADELPHIA, PA.



Columbus Bolt Works,

Columbus, O.

Bolts, Nuts, Washers, Turn Buckles, Bridge and Roof Rods and **Bolts**

ALL KINDS OF CARRIAGE FORGINGS. CATALOGUE ON APPLICATION.

THE "GLOBE" VENTILATOR.

In Brass, Copper, Galvanized Iron and with Glass Tops for Skylight purposes.

FOR PERFECTLY VENTILATING

Schools, Churches, Halls, Mills, Factories and Audience Rooms of Every Character.

SMOKY CHIMNEYS CURED.

"Globe Ventilated Ridging"

Send for Pamphlet.

Manufactured by

GLOBE VENTILATOR CO., TROY, N. Y.

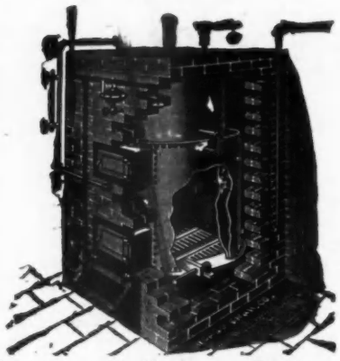
BOILERS AND RADIATORS

A Postal Card from you will bring valuable, complete information in regard to the best, most comprehensive, strictly modern line of these goods.

WRITE US TODAY.
New York, Boston, Philadelphia, St. Louis, Buffalo, Minneapolis, Denver, Detroit, London.

AMERICAN RADIATOR COMPANY

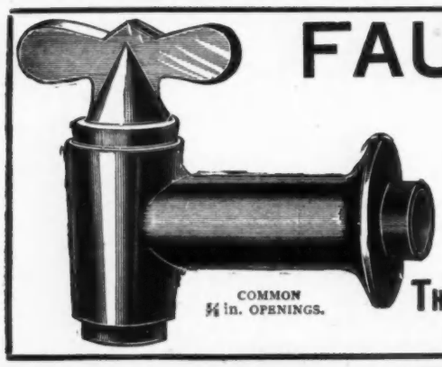
Lake and Dearborn Sts., CHICAGO.



Improved Haxtun Boiler

For Steam and Hot Water Heating. Magazine Feed. For Soft and Hard Coal, 18 years' successful use.

Kewanee Boiler Company, Kewanee, Ill.

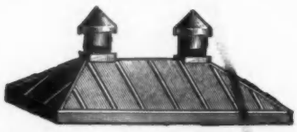


FAUCETS.

Beer
Milk Can
Oil Can
Cream Separator,
of Various Sizes and Styles.

MFD. BY
THE CLARK NOVELTY CO.
ROCHESTER, N. Y.

COMMON ⅝ in. OPENINGS.



"The Illinois"

METALLIC SKYLIGHTS

Are known in every State. Have stood the test for years. Are made in 10 styles and 500 sizes. Complete Skylight, Cornice and Finial Cathlogue mailed free.

J. H. JONES, Mfr.,
Lock Box 33. STREATOR, ILL

C. C. Arbogast, Monterey, Va., writes. "I beg to take advantage of your kind offer of inserting a free want ad. in your journal. Am a regular subscriber to The American Artisan, and I can tell you, without an iota of flattery, that I find it indispensable."

The Kelsey Warm Air Generator.

Study the construction of the Kelsey and the principle employed in warming the air, and you will be convinced of its efficiency.

In the Kelsey the air is warmed thoroughly and evenly by passing in separate channels through the cast iron sections.

There are from nine to seventeen of these sections in a Generator, according to its size.

Each section weighs about 70 pounds, and has 8 square feet of heating surface.

These immense surfaces and this great weight of cast iron, being in direct contact with and over the fire, are kept heated to any required degree with a most economical consumption of fuel.

The Kelsey Method of Warming the Air is the Best Method.
Send for Booklet.

Kelsey Furnace Co., Makers,

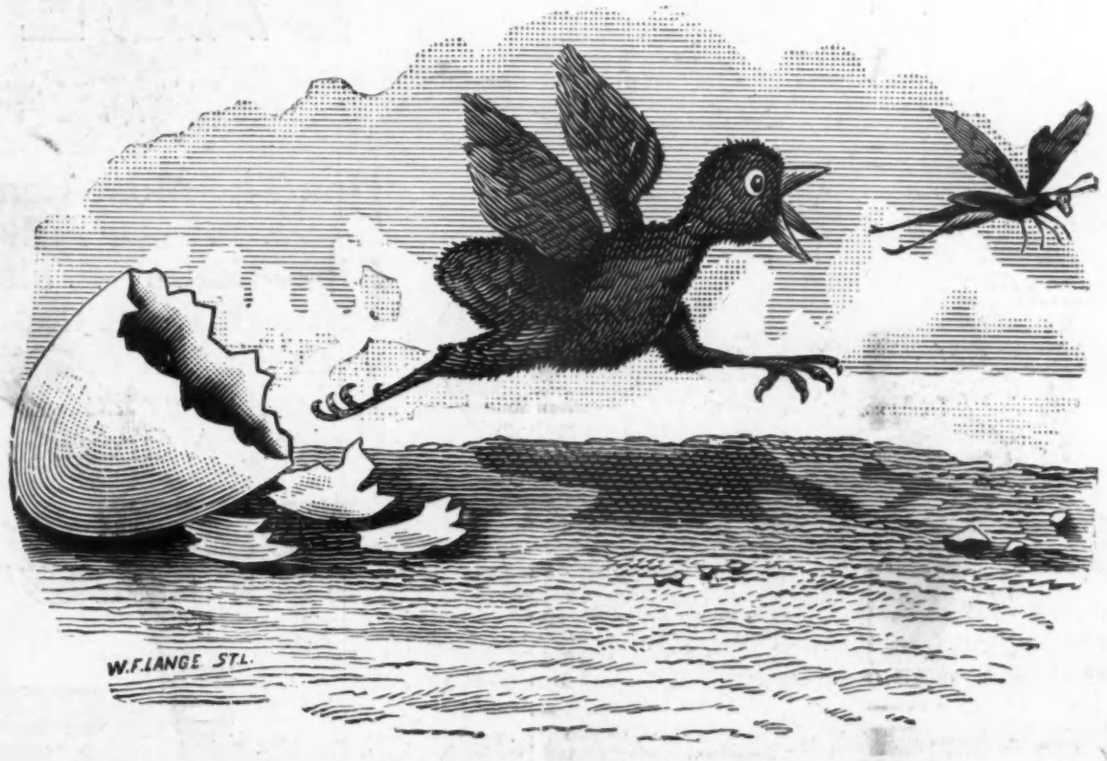
MAIN OFFICE, SYRACUSE, N. Y.

NEW YORK OFFICE, 239 Water St.

James Smart Mfg. Co., Brockville, Ont. Sole Manufacturers for Canada.

Cook & Van Evera Co., 38-40 E. Lake St., Chicago, Ill., Western Selling Agents.

"Quick Meal"



"Quick Meal" ENAMELED POLISHED Steel Ranges

Perfect in Construction, Perfect in Design and Appearance.

The Corner Tube construction gives their Side and End Walls a Smooth, Neat Finish and leaves no creases like those found in all riveted ranges.

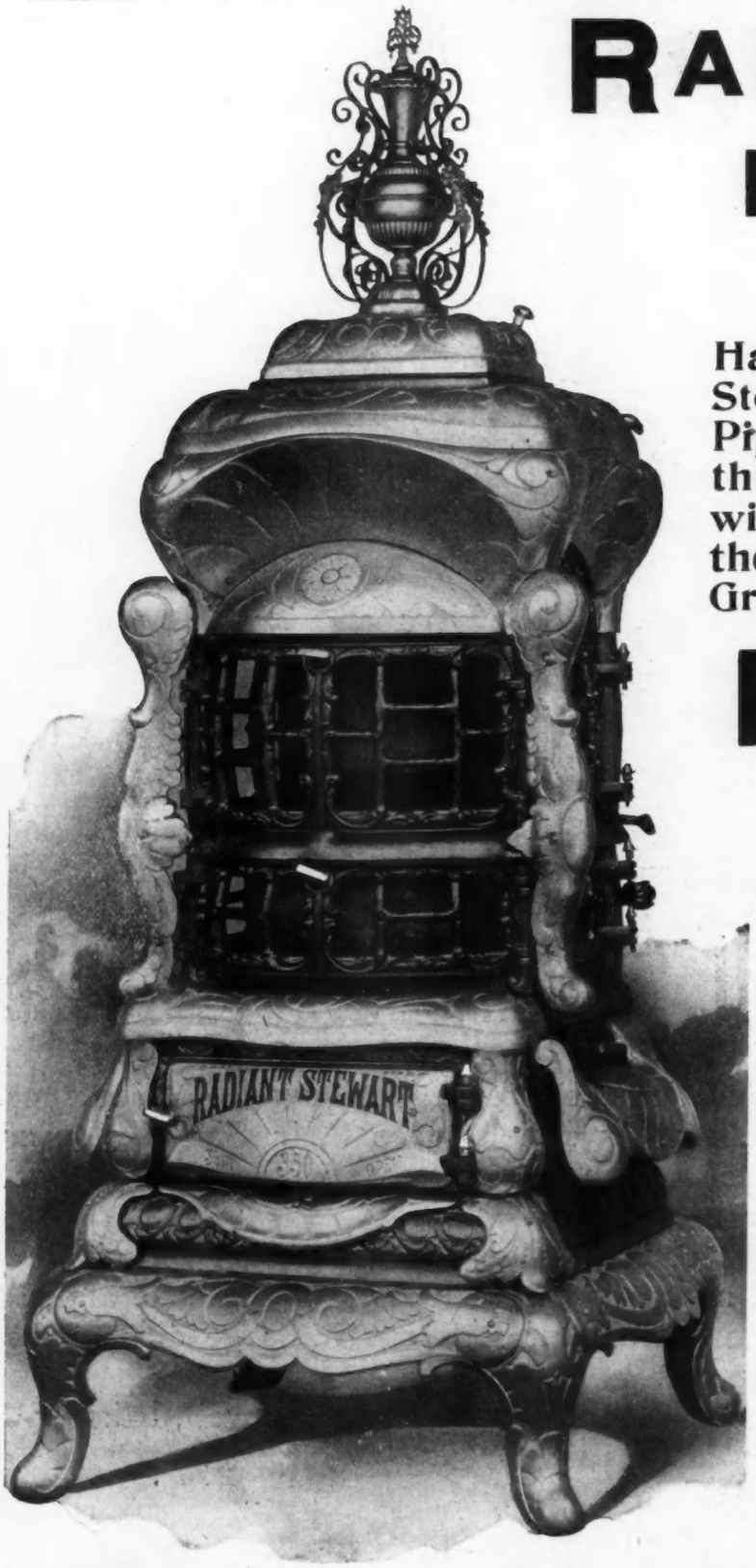
The Steel Plates used in their Ovens are very heavy and well braced and will not warp. Every piece of the body and all holes in the body are cut and pressed out in large dies, consequently fit absolutely true.

"Quick Meal" Steel Ranges look well, last well, bake well, sell well and Stay Sold.

They are Friend Makers.

Ringen Stove Co.

ST. LOUIS.



RADIANT S

BASE BU

. . . FOR 1

Has The Most Beautiful Nic
Stove. It is a Full Double H
Pipe Collar. The Firepot
through front doors. It is
with Nickel or Mica Inturn
the only Perfect Duplex Shal
Grate. A Great Fuel Saver.

Prize St

Base Bu

. . . For 190

This is the most a
medium priced Ba
er on the Market.
medium in price
Class in Quality
great saver of
large flues and u
in every respect.
pot can be removed t
side doors. It has a
plex and shaking Grat

The Fuller W

T STEWART BURNER.

OR 1901 . . .

utiful Nickel Ever Seen on a Double Heater with Hot Air Firepot can be removed s. It is made in three sizes a Inturned Section. It has plex Shaking and Dumping el Saver.

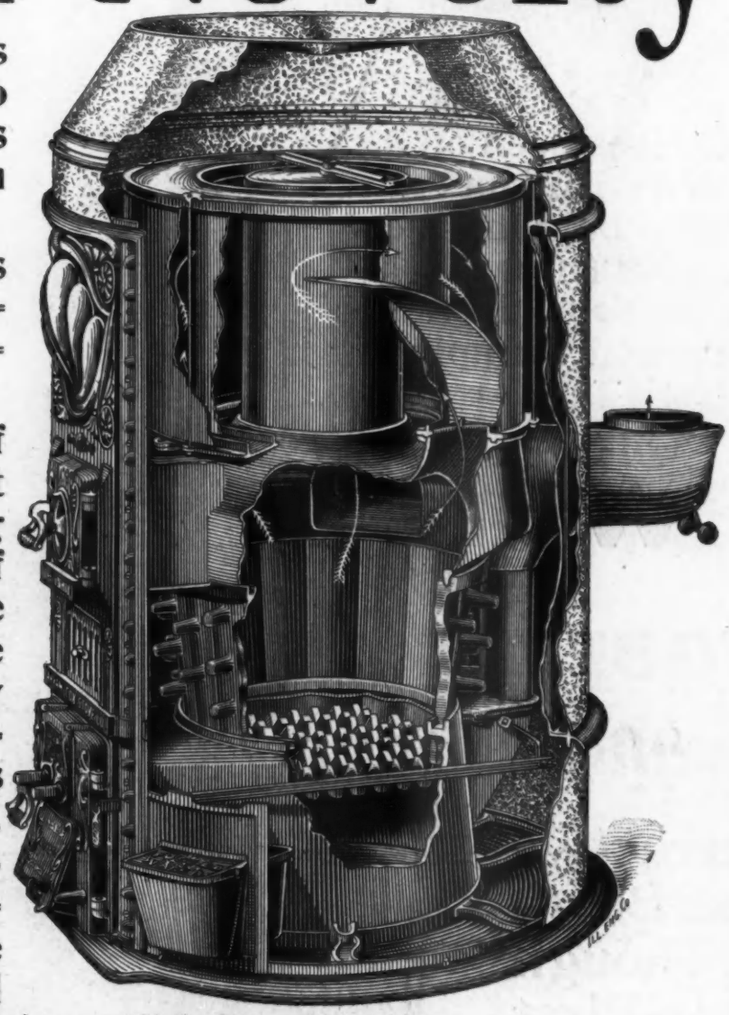
Stewart Burner.

r 1901 . . .

most attractive iced Base Burn- arket. Though price it is First Quality. It is a er of fuel, has and up-to-date spect. The Fire- moved through the t has a perfect du- ing Grate.

Warren Co. Milwaukee, Wis.

Ideal Novelty



The name of this Furnace tells in two words as much as could be said in chapters.

Webster defines **"IDEAL"** as, a "standard or model of perfection or duty."

The thousands of these furnaces that are now heating houses in all parts of the country, and the thousands which are being bought every year, stand up as undeniable claimants for the last definition.

The **"IDEAL NOVELTY"** is our high-grade, typical, three radiator Furnace, and when properly cared for will last a lifetime.

The **IDEAL NOVELTY** shows the results of our concentrated thoughts and carefully compiled experience of the past fifty-three years.

Abram Cox Stove Co.

Philadelphia, Pa.

Chas. A. Rusco,

Manager Chicago Branch,

15-17-19 West Lake St.

Established 1847

BRANCHES: Boston, Buffalo. **FOUNDRIES:** Lansdale and Philadelphia.

White's Stoves and Ranges

White's Poplar.
Nos. 12, 14, 16, 18.

White's Oak.
Nos. 14, 16, 18, 20.

The White's Poplar is a finely fitted and mounted cheap Oak Stove that will meet any competition.

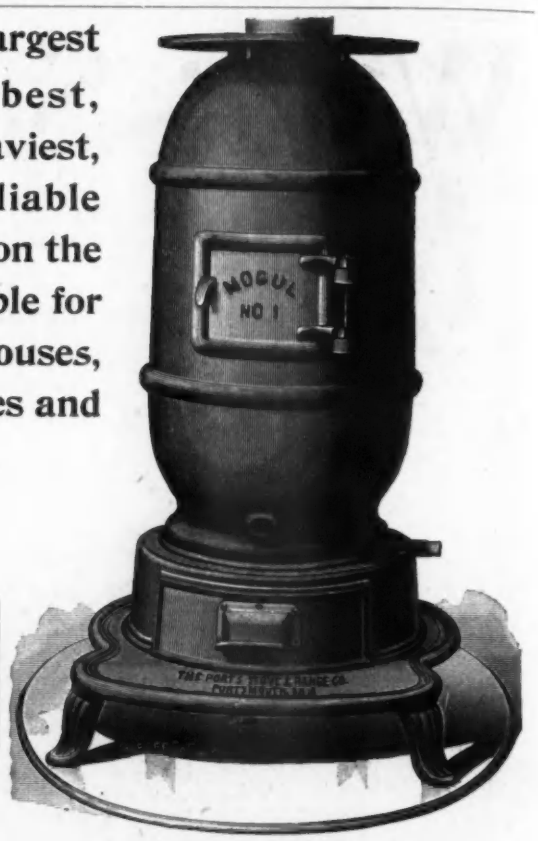
The White's Oak with base cast in one piece is the best Oak stove on the market.

Write for Price List and Discounts.

Thomas White Stove Co.

QUINCY, ILL.

We make the largest line of the best, smoothest, heaviest, and most reliable cannon stoves on the market. Suitable for offices, school houses, stores, churches and railroad shops.



Write Us.

Portsmouth Stove & Range Co.

PORTSMOUTH, O.

The Busiest Makers of Stoves & Ranges in the World

MORLEY BROS.

SAGINAW, MICH.

AGENTS FOR MICHIGAN AND THE NORTHWEST

Finest in the World.

Try a Case from Your Jobber

Large 10-oz. Can with Brush. Packed One Dozen in Case.

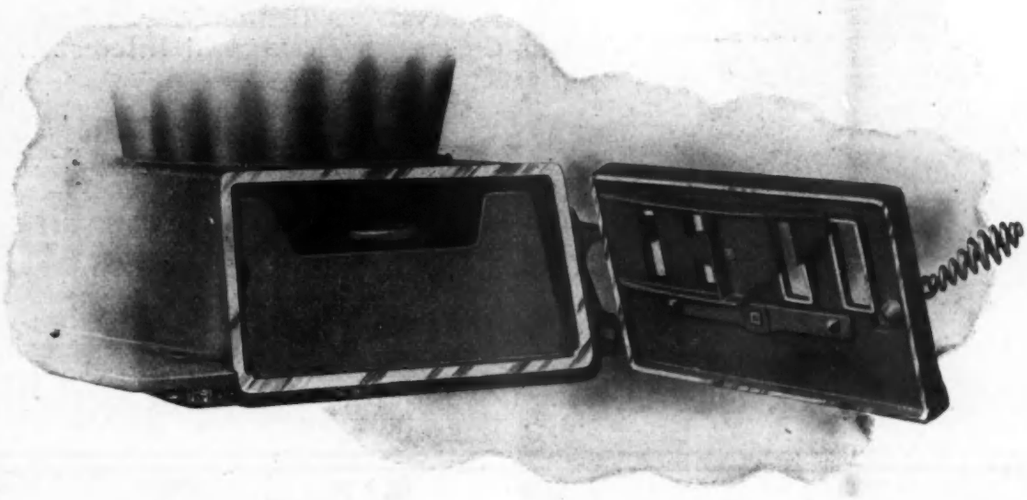
Price,

$1.50 Per Dozen.

NICKEL PLATE STOVE POLISH COMPANY,

Manufacturers **CHICAGO.**

Moore's Air-Tight Heater



Ground Joints Make Perfect Air-Tights

Much of the success of Moore's Air-Tight Heater, lies in the perfection of the base door, all joints being ground to within $\frac{1}{1000}$ of an inch of actual contact.

The lever by which the draft slide is operated is also an exceedingly satisfactory device, as it enables one to accurately register the admission of air, and gives complete control of the fire.

JOLIET STOVE WORKS,

JOLIET, ILLINOIS.

32

THE KING

Adapted for Heating School Houses, Halls and Factories.

A Large, Heavy Stove that has Stood the Test of Time, and will prove a Warm Friend in Cold Weather.

MADE IN THE FOLLOWING SIZES:

No. 21.	Height,	3 feet	9 inch;	Diameter,	16 inch	top fire	chamber.
No. 22.	"	4 "	½ "	"	19 "	"	"
No. 23.	"	4 "	3 "	"	20 "	"	"
No. 24.	"	4 "	6 "	"	22 "	"	"

If you have a Demand for a Stove of this Class, Our Prices will Interest You.

PITTSBURGH STOVE & RANGE CO.

PITTSBURGH, PA.

Western Sales Agent: **W. D. Sager,** 38 and 40 Michigan Street, Chicago, Ill.

Van's

Pat. Improved Wrought Steel Portable

Range.

For HOTELS, RESTAURANTS, PUBLIC INSTITUTIONS, BOARDING HOUSES and PRIVATE FAMILIES.

All kinds of Hotel Implements for Culinary Purposes.

Manufactured and For Sale by

The John Van Range Co.,

419 Elm and 410, 412, 414 & 416 Home Streets,

CINCINNATI, OHIO.

The AMERICAN M & D STEEL RANGE

Best on Earth.

Made in four sizes, 16-, 18-, 20- and 22-inch ovens. PORTABLE RESERVOIR, white enameled inside and out, or ENCASED RESERVOIR, as desired. Ovens iron framed, back flue heavy cast iron.

DUPLEX, DOCKASH or WOOD GRATES all slide out. Large POKE DOOR on end with or without FEED POUCH. This range will win out over all others in your city.

We make all sizes FAMILY, HOTEL and COMBINATION STEEL RANGES.

M & D RANGE CO., 96-98-100 LAKE STREET, CHICAGO.

The Wayne Steel Range

is made under our personal supervision as are all our steel ranges and stoves. In the manufacture of our ranges we spare no expense to get the best material. This is put together by skillful mechanics whose work is supervised with a thoroughness unknown in other factories. Write for catalogue and prices.

Detroit Steel Range Co.

FACTORY AND SHOW ROOM:

13-45 Widman Place, Detroit, Mich.

Wholesale Prices! If your dealer does not handle MONARCH MALLEABLE IRON & STEEL RANGES we will ship the first one ordered from your community at wholesale price—saving you $10.00 to $25.00 from any other malleable range. Freight paid 400 miles. SENT FREE—Handsome catalogue with wholesale prices and full particulars.

MALLEABLE IRON RANGE CO.,
Recently St. Louis, Mo.,
3114 Lake St., Beaver Dam, Wis.

Mr. Live Dealer

This advertisement for

MONARCH

Malleable Iron and Steel Ranges is now appearing in over sixty of the leading Magazines and Family Papers of the United States. The combined circulation each month is over thirty million copies.

This insures the attention of more readers in your community than an advertisement in all your local papers combined. It further means that thousands of **MONARCH** Catalogues are being placed in the hands of persons desiring to purchase a first-class Steel Range and who will read them from beginning to end. Some of these are rightfully your customers and with **MONARCH** Ranges in stock you can easily have the sale.

MONARCH Ranges are made of Steel and Malleable Iron. They have no Equal.

Send at once for catalogue and special introductory offer to live dealers, including our "follow-up" plan, which is endorsed as the greatest help to a dealer in selling steel ranges ever offered by any manufacturer.

Malleable Iron Range Co. Beaver Dam, Wis.

Economy Gas Heating Stoves

For Natural or Artificial Gas.

FOURTEEN SIZES and SIX STYLES of the most POWERFUL, DURABLE, ECONOMICAL, and ATTRACTIVE Gas Heating Stoves on earth. By securing the agency for the "Economy," dealers are sure to enjoy largely increased sales and profits.

Manufactured by

Economy Stove and Mfg. Co.,

Write for Catalogue. **DETROIT, MICH.**

The Key to Success

Lies in original advertising. Other dealers are using our

Advertising Cuts for Hardware Men.

WHY NOT YOU?

They are the cheapest on the market.
They are specially adapted for hardware stores.
They are unique and original.

SEND FOR LARGE 4 PAGE CIRCULAR.

Daniel Stern, 69 Dearborn St., Chicago.

The House-Warming Manual.

Is beyond all doubt the best book published on practical house-heating.

It contains the plans and essays on heating a house submitted in THE AMERICAN ARTISAN House Warming Competition for $300.-00 prizes, and is in fact

An Encyclopedia of the Most Modern and Improved Practical Methods of Heating a House by Steam, Hot Water and Warm Air.

The Chicago Journal of Commerce, of July 26, '96, says in course of a lengthy and commendatory review:

"The volume is a well-bound and artistically printed and illustrated volume of nearly 300 pages, and contains some masterly essays on steam heating, hot water heating and warm air heating. Nearly every prominent authority in this field is quoted, and an application of principles and improvements suggested covers all technical details in a simplified and practical way. House plans and diagrams accompany the subject matter, which deals specifically with radiation, combustion, ventilation, prices, estimates, and the best and latest methods for placing, connecting and utilizing the apparatus adopted."

PRICE, ONLY $3.50 PER COPY.

For sale by all booksellers or the Publisher,

Daniel Stern,
69 Dearborn Street,
CHICAGO.

Apply All The Tests

to **Schill's Furnaces and Ranges,** and they will fill the bill every time. Whether the test be durability or economy of fuel, satisfaction to the user or salability. They never fail to meet every requirement.

Write for Catalogue and Prices.

The Schill Bros. Co.,

CRESTLINE, O.

Our Latest Production of **"Champion"**

Double Flue Hot Blast Steel Ranges

Guaranteed to Give Satisfaction with Any Kind of Fuel.

They are Finished in Japan, Polished Steel or Russia Iron.

Champion Steel Range Co.

CLEVELAND, OHIO.

We are represented by the Following Houses:

Lee-Glass-Andreesen Hdw. Co., Omaha, Neb.

James Graham & Son, San Francisco, Cal.
Michigan Distributing Co., Lansing, Mich.
J. M. Litchfield, New York, N. Y.
Kettiesen & Degetan, Chihuahua Mex.
Moore-Handley Hdw. Co., Birmingham, Ala.
Richards & Conover Hdw. Co., Kansas City.
Chicago Stove & Range Co., Chicago, Ill.
Jacob Retterer, Chicago, Ill.
Corbett, Failing & Robertson, Portland, Ore.
Palmer Hdw. Co. Savannah, Ga.

Ohio and U. S. Wrought Steel Ranges

We are pioneers in steel range business; old in experience yet adopt modern up-to-date methods. Write for our catalog.

Tinnerman Steel Range Co.,

CLEVELAND, O.

STAR ANVIL & VISE.

Star Anvil and Vise No. 5, Closed.

The movable jaw has corrugations corresponding to the ones on side of anvil. This permits of a very close adjustment and the strongest and most rigid movable jaw made. The opening between jaws is 12 inches. Has solid box for screw, finely finished, hardened jaws and fall, painted green.

Star Anvil and Vise No. 5, Open.

The Schreiber & Conchar Mfng. Co.

Manufacturers of Hardware.

Dubuque, Iowa.

M. C. Thiesen, Willow Lake, Ia., writes:— "I received 19 inquiries for my tinners' tools, and still they come. I wish I had more tinners' tools, so as to sell them. Your paper must run all around the world the way they pour in. If I had any more things to sell I will know how to do it."

L. B. HOOKER, Sturgis, Mich., writes:

"Your paper is a grand success. I believe no tinner or plumber should do without it. I try to keep up with the times and the only way is to find out what other shops are doing, and the way to do that is to take The American Artisan."

THE SUCCESS OF

Mueller Furnaces

Has been attained by giving full value.
If you are not one of our customers we hope to make you such.
Write for our 1901 catalogue and prices. Get our
SPECIAL REGISTER OFFER.

L. J. Mueller Furnace Co., 191 Reed Street, Milwaukee, Wis.

Gilt Edge Warm Air AND Combination Heaters

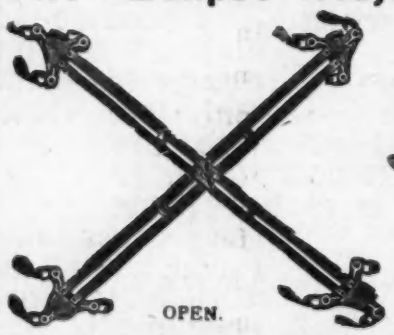
are leaders embodying points of furnace excellence possessed by no other furnaces. A large variety of sizes and styles, each especially adapted for a certain class of fuel. We are manufacturers of a complete line of warm air registers, safety pipe and tin galvanized iron furnace fittings.

R. J. Schwab & Sons Co.,

MILWAUKEE, WIS.

The "Eclipse" Adjustable Stove Truck

Made entirely of Steel and Malleable Iron.



OPEN.

CLOSED.

It is light, neat, and at the same time strong and durable. Will last a lifetime and saves its cost annually in preventing breakages, as it is impossible to tip or shove a stove from the ECLIPSE TRUCK.

Stellwagen & Kynoch, St. Ignace, Mich.

"It is true that advertising will not put merit into poor merchandise, but good merchandise often becomes poor for the want of good advertising."

—Some Essential Oils for Advertising.

E. D. Strong
Dryden, Mich.
writes:

At present I am not in the Hardware business, but feel that I cannot afford to be without THE AMERICAN ARTISAN. It is a most valuable paper.

THE STEEL STRIKE

Has sent the price of material soaring. We have a large stock of Furnace Pipe, Fittings, Registers, Asbestos Cement, etc. Our prices will even **wake up**

A WIDE AWAKE MAN

Why not drop us a postal. We'll do the rest.

THE WIRETON TIME REGULATOR.

A Marvelous Seller.
Will automatically turn on the draft of any furnace, steam, or hot water boiler.

THE HOFFMAN STEEL FURNACE.

The highest type of an exclusively hard coal furnace.

THE AUER SIDE WALL REGISTER.

No Cut Carpets.
A comfort as well as an ornament. No dirt, no dust, easily cleaned.

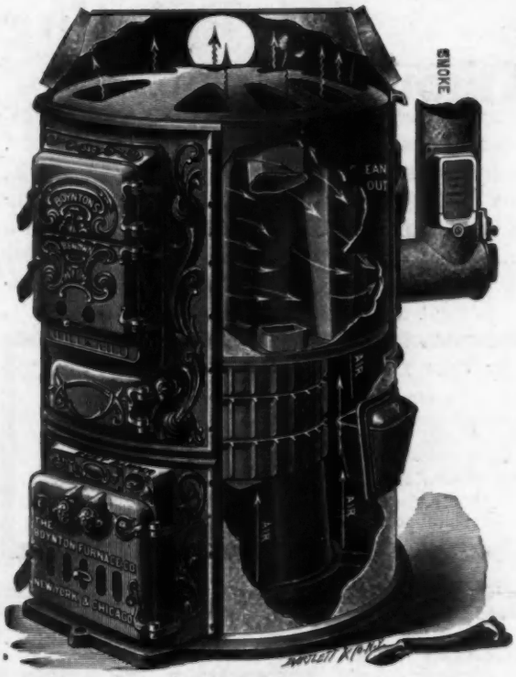
Our furnaces and specialties are great levers for pushing business your way. Exclusive agencies given.

WIRETON HEATING CO., MAIN OFFICE AND WORKS Blue Island, Ill.

CHICAGO OFFICE. 40 DEARBORN ST.

The making of heating apparatus—

Hot Water Heaters, Steam Heaters and Furnaces,



is our Specialty. In over fifty years of experience we have met with about every phase of the heating problem. The manufacture of economical and durable heating apparatus has been our constant aim, and our success has been fully demonstrated by our long continuance in this line.

REMEMBER, efficiency and durability are the sure tests of cheapness.

Catalogues, Price Lists and Discounts cheerfully furnished the trade.

The Boynton Furnace Co.,

New York and Chicago.

The Manual of Receipts

has been accorded wide-spread recognition as an invaluable workshop companion. Practical men have tested its receipts in their daily work, and are loud in their praise of their accuracy and utility. This book is a great help to every sheet. metal worker, as it is full of receipts for

Extracting Rust From
Polishing
Repairing
Preserving
Silvering
Tinning
Testing
Welding
Glazing
Frosting
Hardening
Mending
Ungilding
Writing on
Amalgamating
Coating
Coloring
Enameling
Fastening
Gilding
Japanning
Lining
Painting

THE VARIOUS METALS

It is a handsome 240 page book substantially bound in cloth with cover embossed in gold. It tells how the various lacquers, bronzes, solders, varnishes, alloys, cements, &c., are made.

The receipts and processes in this book will be found specially valuable to sheet metal workers, many of the receipts having been given in THE AMERICAN ARTISAN during the nineteen years of its existence in answers to queries from readers of the paper, and in a number of cases the information was furnished by manufacturers using the receipt in their business, or by skilled mechanics furnishing a compound whose ingredients they had themselves worked out, this valuable matter now making its first appearance in book form.

WHAT THEY SAY OF IT

A. F. Ramharter, Clear Lake, S. D.—"The best work of its kind."

C. C. Casler, Port Huron, Mich.—"A very valuable adjunct to my business."

Emmitt Heater Co., Sterling, Ill.—"A good book to have."

Charles A. Swaine, Cape May, N. J.—"I would not part with my copy for twice the price."

Frank J. Brazda, Dodge, Neb.—"Its practical usefulness is virtually unlimited."

C. M. Perrott, Beaver Falls, Pa.—"The best book of the kind."

Chas. Malone, Rolfe, Ia.—"A regular mine of information."

A. W. Kuhn, South Milwaukee, Wis.—"The book is worth double the amount."

FOR SALE AT $3.50 PER COPY

BY ALL BOOKSELLERS, or by

DANIEL STERN, Publisher

69 Dearborn Street, CHICAGO

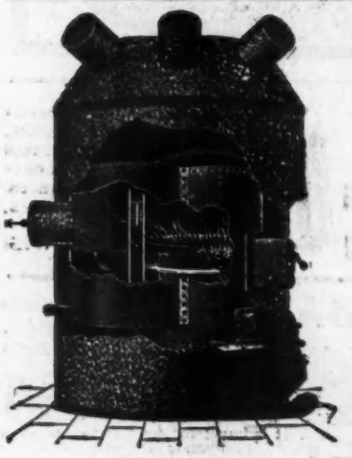
STAR STOVES AND RANGES
ENTERPRISE STOVE CO. VINCENNES, IND.
GUARANTEED

CATALOGUE SHOWING

Gas Ranges
Steel Ranges
Cast Ranges
Steel Cooks
Cast Cooks
Cast and Steel Heaters
Hot Plates

WILL BE FURNISHED FOR THE ASKING BY

Enterprise Stove Co.
VINCENNES, IND.


Weir Furnace.

Weir ALL STEEL GAS AND SOOT CONSUMING **Furnace.**

The Heaviest Steel Furnace Made.

Absolutely gas and dust tight.
A great heat producer, but a fuel saver.

MADE IN TWELVE SIZES.

"The Handy Furnace Pipe"

The saving of labor in putting it up really makes it the cheapest hot air pipe on the market.

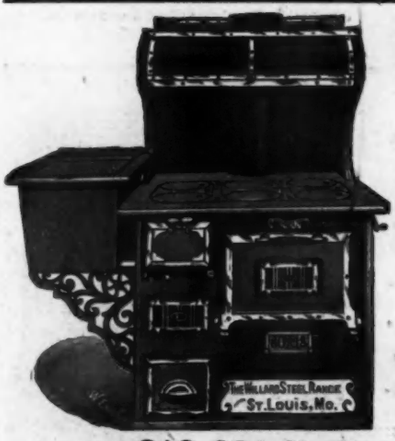
Handy Pipe.

Is Absolu e , Safe.

Manufactured by

Meyer Furnace Co.

Send for Catalogue. PEORIA, ILL.



2000

dealers throughout the United States have made good profits by handling the

Willard Steel Ranges.

Why should not you? This steel range is sold at a price that places it within reach of everyone. It is unquestionably the best seller on the market.

Wm. G. Willard, Mfr.,

619-621 N. Fourth St. ST. LOUIS. MO.

JUDGMENT in business matters ought to make it plain to you that it is just as important to you to use good Asbestos Furnace Cement and Stove Putty in the manufacture of your furnaces as it is to use good iron.

Colebrook's Asbestos Furnace Cement and Stove Putty is the best that can be manufactured. We have furnished the largest manufacturers of furnaces and stoves in the country, and are still doing it. We are ready to furnish you. Why not? Send us your next order. Put up in all size removable cover cans, tubs, barrels and half-barrels.

Manufactured only by

W. H. COLEBROOK, SONS & CO.,

SYRACUSE, N. Y., U. S. A.

Largest Makers of Asbestos Furnace Cement in the World.

CHAS. SMITH CO.
Western Selling Agents
122 Lake St., Chicago, Ill.

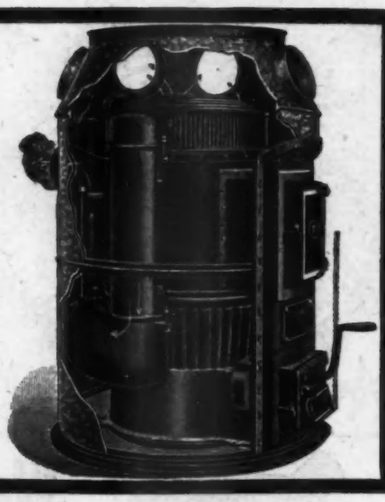
The Hen

with one chicken didn't strut about any more than some furnace makers who make a single furnace which appeals only to a small class of prospective buyers. Shrewd dealers are shaking these small fry makers and are taking agencies for

Floral City Furnaces

which are made in 15 distinct types of warm air and combination heaters for any class of work or any kind of fuel. Write for agency.

MONROE FOUNDRY & FURNACE CO.,
MONROE, MICH.



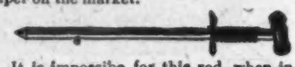
BRAND STOVE CO.

We make largest line of cooking and heating apparatus, cast cooks, cast ranges, steel cooks, steel ranges, hotel outfits, heating stoves, furnaces, hot water and steam heaters. Send for catalogs.
MILWAUKEE, WIS.

The YANKEE Hot Air DAMPER (Improved) All Steel.

Above All, Cheapness—a dealer cannot possibly make dampers as cheaply as we sell the Yankee. Easily put in and taken out of pipes. Stiffest, quickest working and neatest damper on the market.

ROD POINTS: Has wood enameled handle. Wood handle cannot come off. Washer and spring cannot fall off the rod. Same size of holes are punched on each side of pipe. Rod is made of ½-inch cold-rolled steel and slips into damper very smoothly. **Sample sent to any dealer without charge.**



It is impossibe for this rod, when in position, to move either way.

The S. M. HOWES CO., Manufacturers, 40-46 Union St., **Boston, Mass.**

NEW YORK: A. L. Canfield, 248-286 Pearl St. CHICAGO: Excelsior Steel Furnace Co.

Sizes: 6, 7, 8, 8½, 9, 10, 10½, 11, 12, 12½, 14, and 15.

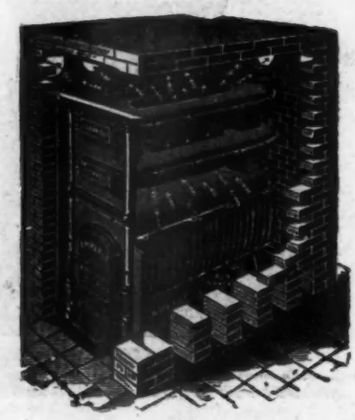
Emperor Furnaces

For Wood

Simple. Safe. Durable.
The Best and Cheapest Line of Wood Furnaces.
Furnished for Either Brick or Galvanized Iron Casing. Send for Catalogue.

Bergstrom Bros. Co.

Neenah, Wis.



Wisconsin Furnaces

stand for the best in furnace construction. They have features which make them trade winners.

Get our prices and printed matter.

Phipps Furnace Co.,

135 ONEIDA ST., MILWAUKEE, WIS.

DON'T READ THIS

Unless you are interested in down-to-the-minute advertising. Have had over 15 years' practical advertising experience with some of Chicago's most successful Manufacturers, Jobbers and Retailers. Am at present engaged with a very large advertiser, but have time to spare and will do a limited amount of work for any one who desires first-class ADVERTISING SERVICE at very reasonable rates. Write for further Particulars.

FRANK. E. RUBOVITS,
233 Fifth Avenue, - - Chicago, Ill.

JEWEL STOVES AND RANGES..

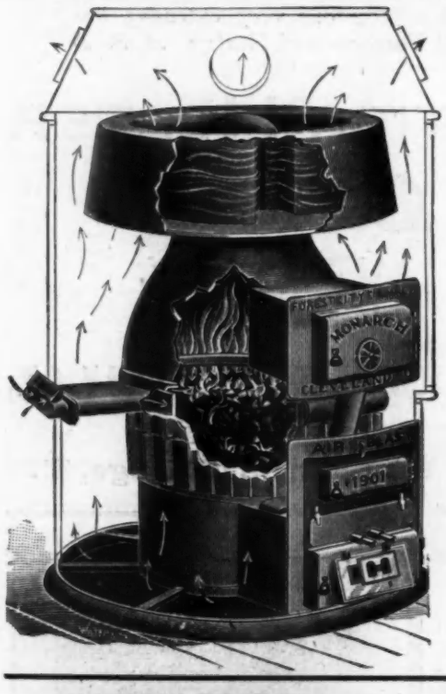
JEWEL STOVES AND RANGES
DETROIT STOVE WORKS
LARGEST STOVE PLANT IN THE WORLD

A Complete, Well Advertised Line;
Low Prices and Good Workmanship.

Please Write for Catalogue.

DETROIT STOVE WORKS.

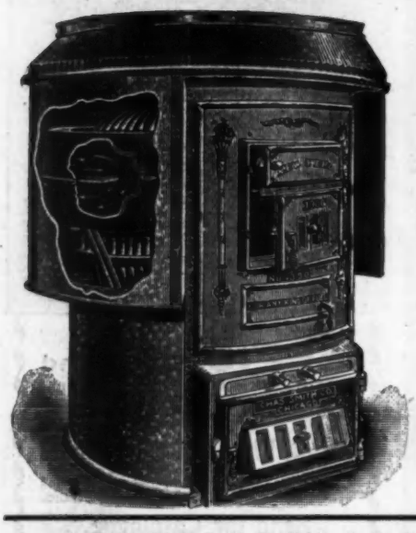
Detroit - Chicago.



We Depend

on merit and price to get trade and hold it. If our Monarch Furnace is not as represented send it back to us at our expense. This furnace is very moderate in price although not cheap in quality.

Forest City Foundry & Mfg. Co. CLEVELAND, OHIO.



The New Hero Furnace.....

Is especially adapted for a combination of hot air and hot water. All Cast Iron, for Low Basements, Coal or Wood. Made in three sizes for large residences and public buildings.

The Chas. Smith Co.,
122 Lake St., CHICAGO.

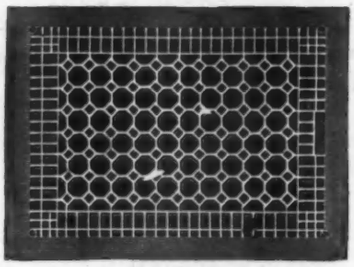
J. P. Watson & Son, Marshall, Minn.,

Write

"You will please take out the want advertisement for Tinner you got us one and "FORTY" applicants:'

Henry & Scheible Co.

SUCCESSORS TO T. E. HENRY.
10 Long St. CLEVELAND, O.



ALL SIZES—ALL STYLES OF FINISH. PROMPT SHIPMENTS

Quality and finish unexcelled.

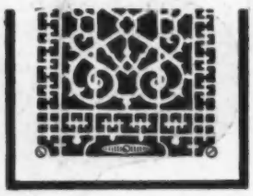
SEND FOR CATALOGUE.

INDEPENDENT REGISTERS.

When you want **good** registers, and want them **promptly**, ask us. Prices always as low as **good** registers can be sold for.

75 Sizes.

INDEPENDENT REGISTER CO.
158 Champlain Street,
CLEVELAND, O.



Jos. W. Young,

Alta, Iowa, writes:

"For goodness sake take my ad. out of your paper! I can't answer half the letters. Have a good job. Many thanks. I wish you great success."

New Superior or Utica Heaters.

Thoroughly first-class and up-to date in every feature. Extra deep ashpit, large firepot, and immense grate areas and combustion chambers. Powerful radiating surfaces. Ornamental shield front. A most substantial and durable apparatus, economical in fuel, mounted low down, and fitted with our **Improved Gas Ring** for burning natural gas, or with **New Hot Blast Attachment** for soft coal. **Steel or Cast Radiator.** Absolutely free from dust, gas or smoke.

Send for new Illustrated Catalogue describing our very extensive line of Furnaces and Heaters.

UTICA HEATER COMPANY,

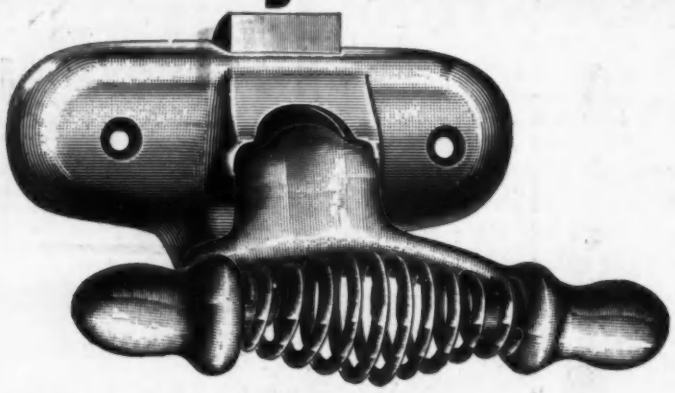
UTICA, N. Y.

CHICAGO HEATER & SUPPLY CO.,

Western Managers,

54 Dearborn St., Chicago, Ill.

No. 7. Range Gravity Handle.



MANUFACTURED BY

The Fanner Manufacturing Co.,

CLEVELAND, OHIO.

Registers and Ventilators.

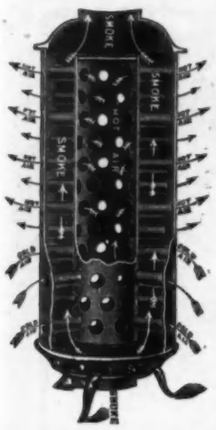
A Full Line, Unique Designs

Quality and finish unexcelled. All styles of finish, from Japanned to Gold Plated.

Send for Catalogue.

The Philadelphia Hardware and Malleable Iron Works

Philadelphia, Pa.

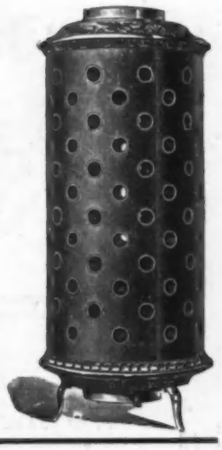


COUNT THE TUBES

IN THE

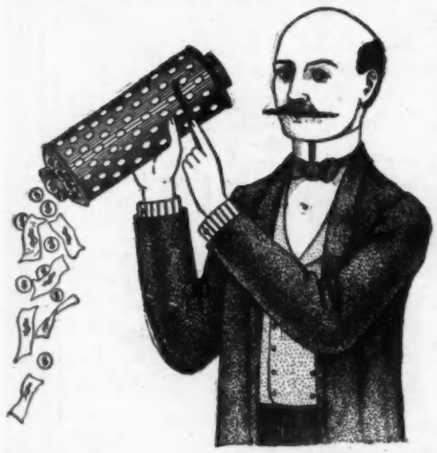
Rochester Radiator

and you will comprehend the great radiating surface directly over the hot current where one square inch is better than six at the side.



Rochester Radiator Co.,

120 Furnace St., Rochester, N. Y.

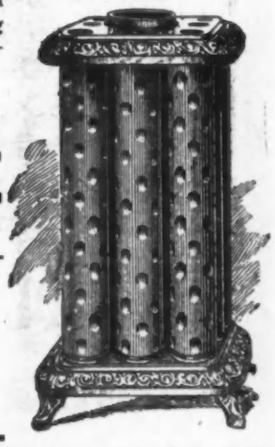


There's Money In It

Good profit can be made selling a winter comfort like the

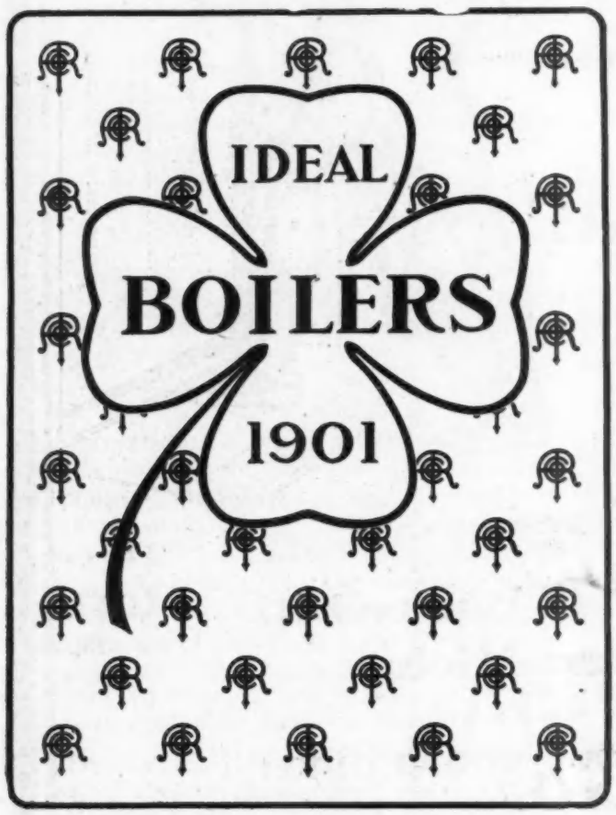
New Era Radiator

Your customers can easily be convinced of its merits. They will quickly buy it when you show them how it increases the heating capacity of the furnace or stove without trouble or cost. Write and we will convince you, too, that you should sell it.



Wilmot Castle & Co.,

77 Elm St., Rochester, N. Y.



OUR NEW

Boiler Catalogue

NOW READY.

A postal card request will secure a copy...

AMERICAN RADIATOR COMPANY

Lake and Dearborn Streets,

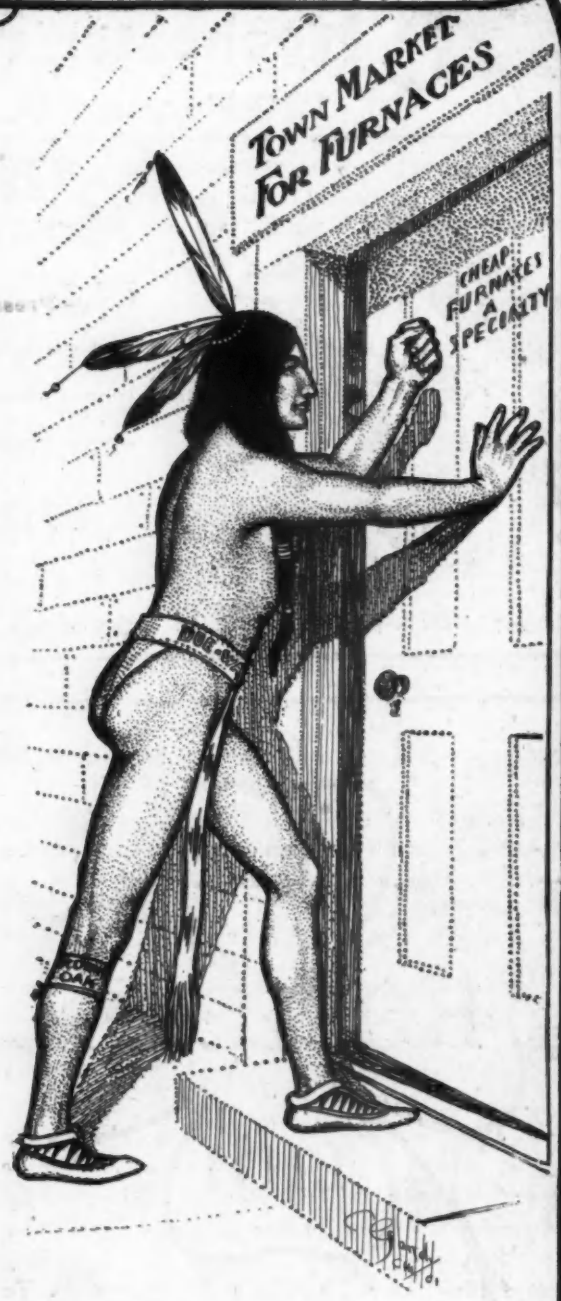
CHICAGO.

New York, Philadelphia, Buffalo, St. Louis, Minneapolis and Denver

ROUND OAK—STANDARD of AMERICA

CURTIS CANDY CHI. 1900

We have towns
where no other
furnace but the
Round Oak
can be sold.
It wasn't easy
on the start.
It took time.



Price only had the floor when we arrived

but we kept trying
and secured
a chance,
and it has been
getting easier
ever since.
People will buy
good furnaces
if they have
the opportunity.

Estate of P. D. Beckwith,
Dowagiac, Mich.

MAKERS OF GOOD GOODS ONLY.

37

ESTABLISHED 1880

THE AMERICAN ARTISAN & HARDWARE RECORD

Representative of the Stove, Tin, Hardware, Heating and Ventilating Interests.

PUBLISHED EVERY SATURDAY.

Terms of Subscription in the United States, their Possessions, and Canada, (invariably in advance): One Year, Postage Paid, $2.00.
In Foreign Countries, Except Canada, One Year, Postage Paid, $4.00.

Address all Letters, communications and remittances to

DANIEL STERN, President American Artisan Press,
69 DEARBORN STREET, CHICAGO, ILL.

Entered at the Chicago Post Office as Second Class Matter.

This Paper is a Member of the Chicago Trade Press Association.

CHICAGO, SEPT. 14 1901.

EXPORTS to China are beginning to resume their normal proportions. The July figures of the treasury bureau of statistics show the total exports to China from the United States as $2,622,475, against $1,349,697 in July, 1900. In the seven months ending with July, 1901, the total exports to China are $9,703,787, against $9,100,321 in the corresponding seven months of the preceding fiscal year. Taking the exports to the British and Russian possessions in China also, the total for the seven months is $10,090,816, as against $9,294,930 in the corresponding period of last year. Our exports to China in July, 1901, are larger than in any preceding July, a fact which seems to indicate that the commercial relations with China are not likely to permanently suffer as a result of the events of the past year.

EXPORTS from the United States to Porto Rico and the Philippines continue to increase rapidly; to Cuba they are decreasing, notwithstanding the fact that the imports from Cuba are rapidly increasing. Our domestic exports to Porto Rico in the seven months ending with July, 1901, were $4,399,326, against $3,107,248 in the corresponding months of last year, an increase of 40 per cent. To the Philippines our domestic exports in the seven months ending with July, 1901, were $2,023,137, against $1,592,030 in the corresponding months of 1900, an increase of over 25 per cent. To Cuba, our domestic exports in the seven months ending with July, 1901, were $13,821,751, against $14,870,940 in the same months of 1900, a decrease of 7 per cent. Our imports from Cuba in the same period of 1901 were $36,829,630, against $24,767,654 in the corresponding months of last year, an increase in imports of about 50 per cent. From Porto Rico our imports in the seven months ending with July, 1901, were $5,111,903, against $3,084,018 in the corresponding period of 1900, an increase of 65 per cent. Regarding the commerce with Hawaii, no definite statistics from our own reports can be had, owing to the fact that the shippers refuse to give information regarding their commecce with the Hawaiian Islands, which are now a custom district of the United States, and therefore not subject to the law which requires statements of exports to, and imports from foreign countries to be furnished to the Bureau of Statistics.

THE entire nation is sorrowing in the speedy turn for the worse in the condition of its honored and respected President, who was struck down so recently by the dastardly hand of an Anarchistic assassin. This abhorrent crime must bring renewed attention to the fact that anarchy is an avowed foe to the permanency of the state and that the public welfare demands its instant throttling. The democracy in which we justly glory has caused us to shut our eyes to the growth of sentiments inimical to all governments. Liberty, like all things else, has its limitations, and we should disabuse the half-learned followers of Most, Goldman, disabuse the minds of the followers of Most, Goldman, an invitation to indulge in the most vitriolic assaults at the foundations of all law. This is the land of the free, but we should in unmistakable terms make it manifest, once for all, that hereafter there is not to be the slightest tolerance of any political or economic creed that with incendiary zeal stirs up stagnant homicidal instincts and acknowledges the assassin as a potent instrument in its infamous propaganda.

ONE of the great secrets of the success of American manufacturers is their specialization. The average British manufacturer turns out implements and machines of varied types, oftentimes "just a few" of this machine and that. He introduces a new pattern and alters existing machinery in order to cope with the demand which he is experiencing. In this way he is handicapped, and the limited number he is able to produce with his limited plant and machinery is not sufficient to yield him profitable returns, or to warrant any great expenditure on production. In America they do things differently. When a manufacturer has got hold of a good thing he floats a huge undertaking; he builds workshops, and puts down a special plant of just the right type to enable him to turn out large quantities of implements or machines at a minimum cost. He is content to make, say, binders and mowers only, and to concentrate all his energies on these; knowing that with the whole world open to him he can sell all he can make provided that the goods and price are right. Machines turned out in tens of thousands in works where thousands of men are employed can be produced more economically, material purchased cheaper and management expenses made lighter than the competitor who runs a mixed business and sells smaller quantities. British manufacturers have not all the facilities for centralization and specialization possessed by their American competitors, but they can follow on their lines, and in many instances take a leaf out of their books, and so make some of their specialties pay better than they do at present, even if they do not come up to the standard of their trans-Atlantic competitors.

RANDOM SKETCHES.

BY SIDNEY ARNOLD.

THERE is a certain relationship between good cookery and good conduct. The odors one whiffs from the rear of dingy tenements alike tell ghastly tales of burned cabbage, of stews and "messes" in which meats and vegetables are boiled up together, each losing its individual flavor, and the whole turned out in a greasy, sodden mass; of coffee and tea that have been boiled "to death," of fish that have seen better days and have since been smoked and salted. In summer, when soggy, greasy foods create disgust, when one longs for fruit and vegetables daintly cooked and lightly served, for farinaceous foods, and milk, and cooling salads, there are still the dreadful pans of stew, the melting "chunks" of pork, the fat, sticky sides of meat that have overstayed their time in the butcher shop, and are, therefore, sold at a bargain. How do people who fare on such a diet keep their health? They would not, except for constant exercise and eager appetites. It is not imagined that the slums could be reformed by costly dinners, but it is certain that cheer and content are facilitated by good eating, and that without good eating there is sure to be sourness and disaffection. Hence the missionary has a field in our cities in teaching wives and daughters how to make life more tolerable for the ill-fed and often discouraged. They will bring new joys into the lives of the humble, if they act on these teachings, and the result of their work will be seen, not merely in increased health and content, but in the lifting of morals.

* * *

THE action of alcohol on man is the subject of a most voluminous literature. Every well equipped temperance lecturer takes along a "horrible example" with him and points to the rubescent olfactory organ, flushed cheek and bleary eye as effects of alcoholic action. Pick up a whisky advertisement and you will see a group of well-preserved gentlemen imbibing Old Horsehoof, Old Raven, Alaska Association or some other popular brand of the "good old stuff." The inference is that these gentlemen owe their stalwart and graceful carriage, substantial figure and healthy appearance to their potations of the brand of booze whose trade mark glares at you right over their heads. Quite recently some ingenious savant has rigged up a contrivance of electrical cogs and has tabulated statistics showing the effect of alcohol on various muscular and mental actions. While countless reformers and distillers have been telling us about the action of alcohol on man, it has remained for Dr. Malmejac, a Polish scholar, to study the effect of alcohol on metals. A long contact with alcohol gives lead a bad case of jim-jams. Tin can stand a liberal amount of alcoholic contact, while copper can punish alcohol all night. Dr. Malmejac in some recent experiments used 95 per cent alcohol, which left no residue on evaporation. The metals, copper, iron, tin, lead, zinc, and galvanized iron—were corked up with alcohol in glass flasks and kept at ordinary temperatures for six months. The copper was entirely unacted upon, but in all the other flasks there was a deposit on the bottom, and the metal was covered with a similar deposit. In the case of tin, lead, zinc, and galvanized iron the deposit was white; that from iron was red, resembling iron rust. All of the liquids, except that in which the lead had been placed, filtered clear; the latter retained its milky appearance after repeated filterings through double filters. The clear filtrates from iron, lead, zinc and galvanized iron gave much residue on evaporation, while the residue from tin was hardly appreciable. In the former cases it is clear that not only had the metal been oxidized, but a considerable quantity had entered into the solution. These experiments have an important bearing on the storing and shipping of alcohol, as absolute alcohol is generallly purchased in galvanized iron cans, so that it ought to require redistillation.

* * *

CHURLISHNESS is not a typical trait of English business houses, nor are all Americans characterized by a painstaking urbanity. The following international exchange of letters should be taken, therefore, as a mere narration of a specific instance rather than as having a genuine interest. A business man in this town recently had occasion to communicate with a business man in one of the northern cities of the United Kingdom. The reply the New Yorker received was written on the back of a postal card, and was as follows:

DEAR SIR: I received a letter from you today addressed to me and I had to pay 8d for it. The next time this happens I will refuse to take it, and it can be returned to you.

——, August 1, 1901.

The rejoinder of the New York business man was thus politely expressed:

DEAR SIR: I am in receipt of your favor of the 1st, stating that you received a letter from me and had to pay 8d on it, and that the next time this happens you will refuse to take the letter.

I hope you will excuse me if I tell you that you should not have written me in this way. Under the system that is generally employed in this country we never see a letter after we sign it; sometimes not after we dictate it. The letters are sealed and mailed by an office boy, and the attitude that you would take would possibly result in returning a letter which might contain an order or a business communication of mutual importance, all because the office boy was not careful to weigh the letter before it was sent out.

It is very amusing to us in America to run across these examples of primitive business methods. A little while ago I sent an order to a business house in France. The order amounted to something like $200 in American money. It happened that this was short paid in postage, on account of an enclosure. The enterprising Frenchman refused the letter on account of the centimes due, and the order was never sent to him again.

We are not surprised at such things happening in a country where they charge you for candles, but we are surprised to have it coming from a cousin country like England.

I don't want to make you angry by this scolding, but want to show you how ridiculous it is when doing business over such long distances to let red tape or English pence interfere with the quick despatch of business. Your own postal is an example of this possible carelessness on the part of a subordinate, as it reached me "due 2 cents," and I can hardly think you intentionally sent me the card with this short postage. Yours truly, ——— ———.

New York, August 13.

* * *

THE latest report of the Interstate Commerce Commission shows that the total mileage of railroads in the United States at the end of the fiscal year 1900 was 193,345.

News Siftings.

The Chattanooga Stove Co., Chattanooga, Tenn., are making estimates as to the cost of a large addition to their foundry.

The Standard Tool Co., Cleveland, O., send us a pretty circular printed in Spanish, designed doubtlessly for building up their export trade.

The Dauntless Mfg. Co., Beaver Dam, Wis., are manufacturers of the "Dauntless" malleable iron and steel ranges, which have smooth polished top, improved grate housing, grate indicator, rachet draft door, malleable back flues and improved oven.

The Gobeille Pattern Co., Cleveland, O., send us a very gaudy postal colored in two triangles, one yellow and the other green, which tells of this firm's new cheap Oak patterns. This Oak looks remarkably well and yet the weights will not go above eight pounds per inch of fire pot diameter.

The Bridgeport Crucible Co., Bridgeport, Conn., are manufacturers of the Champion stove clay. This, it is claimed, is the only stove lining made of crucible materials. It is packed in 2½ pound, 6 pound and 10 pound pasteboard boxes, and also in bulk, and is a very refractory lining.

The Indianapolis Artistic Pattern Works, Indianapolis, Ind., J. B. Ehrlich, proprietor, are makers of a superior line of special stove and furnace patterns, also ornamental, architectural and experimental patterns. Their work is a distinct success, and stove manufacturers who have used it are very well satisfied therewith.

The Atlas Bolt & Screw Co., Cleveland, O., are manufacturers of a complete line of stove bolts, stove rods, machine screws, pointed pins, threaded wires, rivets, special bolts, mica bolts, cold-pressed nuts, etc. This firm turn out nothing but goods of a high quality at attractive prices, and their promptness in delivery has brought them steadily to the front.

The Black Silk Stove Polish Works, Sterling, Ill., are having an immense sale for their Black Silk stove polish and White Silk cream metal polish. These polishes of theirs are made of the best materials and have proven satisfactory wherever used. The trade should drop this firm a line and secure prices. When writing them kindly add: "Saw it in THE AMERICAN ARTISAN."

The trade will learn with deep regret of the death of John C. Larwill, president of the Monarch Stove & Mfg. Co., Mansfield, O., and vice president of the Ohio Brass Co. Mr. Larwill was in his eightieth year and was one of the leading citizens of Mansfield. Mr. Larwill began his career as clerk of the Ohio State Senate, and afterwards became prominently identified with a number of business enterprises.

The Favorite Novelty Co., 139 Beaubien street, Detroit, Mich., are manufacturers of a little gas stove which is always ready for heating water, milk, tea, curling irons, etc. The base and top grate are cast iron. The body is corrugated tin. There is wire gauze at the top and an automatic mixer in the base, requiring no adjustment. This stove can be placed over an ordinary gas burner and lighted on top of the wire gauze.

Mahood & Co., 14 N. Second street, Philadelphia, Pa., send us their neat 1901 catalogue of stove repairs. This firm carry an immense stock of repairs constantly on hand, and their systematic arrangement of same enables them to take care of all orders satisfactorily. This firm constantly keep in stock an extensive line of Blue Flame oil stoves, gasolene stoves, gas stoves, ovens, sauce pans, iron heaters, broilers, lamp stoves, tin tank oil stoves and rubber tubing for gas stoves.

The Toledo Gas & Oil Burner Co., 1117 Adams street, Toledo, O., send us a little booklet describing their Daniels' burner, for use in furnaces, hot water heaters, grates, cook stoves, ranges, heating stoves and steam boilers. By the use of the Daniels' burner the gas is mixed with air in the burner mixer inside the stove, with the blow-pipe principle, thereby securing perfect combustion of the gaseous hydro-carbons which make up so large a part of the heating powers of all fuels, it is claimed.

The Sherman Specialty Co., Chillicothe, Ill., are offering the trade a new steam cooker built on hygienic lines and embodying novel and valuable features. This cooker can be used on any ordinary cook stove or gas range, and its simplicity of operation, with the perfection of results in the way of wholesome, non-overcooked food, has already given it a sale that has necessitated an increased force of workmen. Correspondence is solicited from parties interested in kitchen furniture goods, to whom full information will be given.

The Excelsior Stove & Mfg. Co., Quincy, Ill., are makers of the well-known National stoves and ranges. The Great National range, six holes, square with T shelf and end shelf, for hard or soft coal, coke or wood. The nickel trimmings consist of oven door panels, outside oven shelf, front door panel, two swing tea pot shelves, towel rod, grate shaker and oven door kicker. The special features are oval fire box, aluminum lined oven doors, top cut in four sections, wide centers, heavy covers, cut long centers, convex oven top cement, porcupine fire back, interchangeable oven rack and slide, and large sheet steel ash pan.

Terstegge, Gohmann & Co., Louisville, Ky., send us a copy of their latest catalogue. The place of honor in this volume is accorded the Steel Anchor wrought steel range, for soft or hard coal, coke or wood. This range has ball bearing or duplex grates, key plate or panel tops, flush top reservoir and no dampers. The nickeled parts include front top, end shelf, towel rack, damper handle, pipe register and frame, grate shaker crank and cover lifter, fire door panel, ash pan door, oven door and panel, oven door handle ends, two front feet, top ornament rail, cabinet door panel and hinges, door frame, panel and two towel rods for high closet, edges of high shelf, two towel rods for high shelf, and lower panel or flush style. An extensive line of stoves, ranges and heaters is also shown. The trade in writing for one of these catalogues should kindly add: "Saw it in THE AMERICAN ARTISAN."

The Union Stove Repair Co., 2852-2854 Archer avenue, Chicago, with a branch office in Omaha, are jobbers of a very extensive line of original stove repairs. They claim that they carry a larger assortment of original stove repairs than any other concern in the country. This firm get out a handsome original order book, 6½ inches high by 12 inches wide, which they send free to dealers with the first order for their repairs. This book has stiff black board covers and is a perpetual order book, the inside being renewable when it is used up. The sheets for ordering repairs are provided with a stub for the dealer's convenience, on which he can make detailed memoranda of repairs ordered. This firm are in a position to ship promptly, and that their methods of doing business are liked by the trade is shown by the large business they have built up.

The M & D Range Co., 96-98-100 Lake street, Chicago, send us a circular showing their M and D combination range, made in three sizes. The gas section in this range is entirely new. The top has one large ring burner, four single burners and one simmering burner, all controlled by separate valves and provided with adjustable air mixers. The oven has two separate burners. After it is sufficiently heated by these two burners one can be turned off and the baking can be done by the one burner economically. Water heaters are placed in either or both sections, and require but one connection to the boiler. Either section works independently of the other, and they are perfect in their operations when used together. This circular contains a list of prominent Chicago and Evanston people who use this range, and states that over 4,000 of them are in use in Chicago and vicinity.

The Odin Stove Mfg. Co., Erie, Pa., send us their handsome catalogue of gas heaters and appliances, for 1901-02. The gas heaters shown in this volume include the Tri-Process, Empire Odin, Odin No. 30 A, Odin No. 30 B, Odin No. 8 A, Odin No. 28 B, Regal Odin, Bengal Odin, Brilliant Odin and Prize Odin.

The Tri-Process gas heater is beautifully ornamented and is substantially made of cast-iron throughout, with the exception of the tubes, which are made of the finest American planished steel. It is provided with adjustable air mixers and is wholly free from odor. An important feature of this heater is the double one-piece burner, consisting of six rows of flames, easily operated by wooden handle stop-cocks.

The Empire Odin has a pure air circulating flue extending from the base to the top of the stove, while the waste products from the fire box have their own separate flues which carry all odors and gases to the chimney without mixing with the pure air. One of these interesting and up-to-date catalogues will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

The Detroit Stove Works, Detroit, Mich., are manufacturers of the Jewel stoves and ranges. Their Jewel steel range, for hard coal, soft coal, coke or wood, has body made of the best heavy blue polished steel, of uniform color, with front and sides in one piece. The body is lined with asbestos to retain heat and economize fuel. It is reinforced and protected by steel and cast plates. The oven is of wrought steel. The Dean patent oven bottom is sectional. There is a cast protection plate between the fire box lining and the oven, also a cast protection plate over a portion of the oven top. There is a ventilating damper in the oven door. The oven door is counter-balanced. There is a strong cast oven-rack. The fire box is supplied with a duplex grate, which, when reversed, forms a good wood fire bottom. The duplex grate is easily removed or replaced through the special grate door without disturbing the linings or the water front. The nickel parts include oven door frame and handle; panels on oven door, on check of reservoir casing, and on rolling front of high closet; outer plate on hopper feed door; clean-out door, ash pit door, two tea pot shelves; two high closet and high shelf brackets; high closet corners; high shelf corner pieces; upper and lower bands on high closet; band on high shelf, handle on high closet rolling front; ventilated band on top plate and towel rod.

LAUREL STOVES AND RANGES.

The Art Stove Co., Detroit, Mich., send us a handsome catalogue of their Laurel stoves and ranges. The cover is very attractive, being printed in four colors, with the handsome trade mark of this firm in the center.

The place of honor in this handsome volume is accorded the 20th Century steel Laurel range, for hard or soft coal, wood or lignite. This range, it is claimed, is the only one made having two flues instead of a sheet flue. Among its points are the removable duplex grate, large broiler door, automatic poker door, flared bottom, ventilated oven, balanced oven door, cast iron and cemented oven top, outside made of two thicknesses of steel with thick asbestos between, extra lower bottom, fire brick linings for hard coal, cast iron linings for soft coal or lignite, with hot blast fire back, improved wood grate 24-inch wood, one sectional griddle and pan tops. All outside castings are nickel except the top and left end. The aluminized parts are oven back, oven shelf, oven door lining, inside of high closet, back and ends.

The Domestic Laurel cast range, for hard coal, soft coal, coke or wood, has oval fire box well proportioned, extra heavy iron linings perfectly ventilated, heavy duplex or flat grates, wide draw hearth, ventilated oven, square oven bottom, aluminized oven door, pedal oven door opener, sheet flues very deep, new damper and enameled or copper reservoirs interchangeable. The nickeled parts are oven door panel, name plate, tea pot stands, cover holder, cover lifter, ash guard, handles, knobs, towel rod, edge on cooking top and edge on high shelf and shaker.

The Domestic Laurel cook, for hard coal, soft coal, coke or wood has oval fire box, extra heavy ventilated iron linings, duplex or flat grates, wide draw hearth, rod mounted, ventilated oven, square oven bottom, lined oven door, pedal oven door opener, new damper, interchangeable copper or enameled reservoirs. The nickeled parts are oven door panel, oven door shelf, name plate, cover holder, towel rod, ash guard, knobs, handles, shaker and lifter.

The Art Laurel base burner has removable fire pot

and feeder, double heater attachment, invisible draft slide, automatic feeder cover and improved duplex grate with shaking ring. The nickeled parts are base and legs, base corners, rails, name plate, tea pot stand, corner scrolls, top or dome, swing cover, panel on ash pit door, knobs, turnbuckles and hinge pin tips. The circular bottom flue construction is used in this heater. This, it is claimed, is the best construction, as the heat comes in direct contact with both the outside and inside walls of the base, which is open in the center, through which the air is drawn up between the back flues.

The Twentieth Century Laurel heaters have heavy grates—open draw—center or ball bearings. The large screw draft, absolutely air tight, can be set at any opening.

The Nos. 22, 24 and 26 square double heaters have the following parts nickeled, viz., urn, swing cover, front panel, rails, brackets, legs, base strips and screw draft.

The Nos. 12 A, 14 A, 16 A and 18 A have body made of heavy cold rolled iron, mica door and handsome urn. The nickeled parts are top band, front panel, rails and screw draft.

The Nos. 112 A, 114 A, 116 A and 118 A are the same as the 12 A, etc., series, except that they have cast sections instead of rolled iron body. In these heaters, which burn slack and all grades of soft coal, the draft enters the fire chamber through the slots in the fire pot, causing the coal to burn entirely and only around its outside, thus enclosing the green coal in a circle of intense heat, the same as if in an oven, and the result is that as the fuel burns from the outside toward the center it keeps throwing off gas and coking the coal ahead of it. The hot air from the air blast ring and slots uniting with the gases cause them to burn, producing a continuous gas and coke fire.

One of these handsome catalogues will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

1901 HEATING GOODS MADE AT THE SUNSHINE STOVE SHOP.

The Reading Stove Works, Reading, Pa., and 153-159 S. Jefferson St., Chicago, send us a pretty catalogue of their 1901 heating goods made at the Sunshine stove shop. The cover gives a pretty burnt wood effect and the typographical appearance is unusually attractive throughout. The place of honor in this catalogue is accorded the Gold Sunshine revertible flue base burner, double heater and circulator. This heater separates in the middle to facilitate handling. The upper nickeled section is so mounted, that it can be removed entire. Very large upright flues make a strong, double heater or circulator. All nickeled parts are ventilated to prevent tarnishing.

The Regal Sunshine, revertible flue, base burner and double heater and circulator is both gas and dust proof. The kite-shaped bottom flue takes away all angles from the draft course and throws the intensely heated air to the outer part of the bottom. This kite-shaped bottom flue is peculiar to all this firm's latest base burners. The main body of this heater is built from top to bottom of four continuous jointless vertical castings. Handsome nickeled bands surround on three sides the upper front and side illuminating sections.

The Brilliant Sunshine is a medium priced, strictly first-class base burner.

The Bonnie Sunshine has nickel plated foot rails, skirt base, large hood, name plate, entire main top section, cold air panels and urn base. It has stylish spun brass nickeled urn, Ransom duplex grate, perfect fitting tight joints and capacious ash pan.

The Sunshine Oak has been remodeled and improved for 1901. The polished parts include skirt base, fancy cylinder screen columns, name plate, ornamental top band, swing cover, Sunshine urn, knobs and pins. The mica section gives full view of the fire. The gas generator is a special construction, which greatly promotes combustion and increases the heating surface by combining oxygen with the carbon from the coal.

The Daisy Sunshine heater is adapted for any kind of fuel, and is made with either cast or brick sectional fire pot.

The Sunshine Hot Blast has a number of special features, such as the hot blast or air conduit, draft regulator, gas burner, etc.

The Loyal Sunshine stove has a cast iron shield between the fire brick lining and the body of the stove, center discharge anti-clinker grate, gas burning device, tight joints and ornamental design.

The Sylvan Sunshine is an air tight stove, for wood or for coal, has a deep ash pit, which is cast in one piece, with the main bottom and outer ornamental rim of the bottom cast in sections.

The Tamala Sunshine has machine surfaced screen draft regulator.

One of these handsome catalogues will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

STOVE REPAIR WHEEL.

The accompanying cut shows a very striking bicycle used as an advertisement by the City Stove Repair Co., 108 Prospect street, Cleveland, O. This wheel is

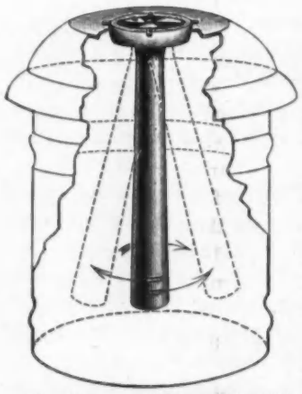
Stove Repair Wheel.

constructed of stove and furnace repairs, as a close examination of the various sprockets, handle bars, etc., show. In spite of the fact that this is an A No. 1 firm, we must candidly state that we have a mighty poor opinion of the

riding qualities of this bicycle of theirs, and would earnestly advise all our readers desiring bicycles for either business or pleasure riding not to patronize this house. When they are in need of stove repairs it is very different—most decidedly so, in fact, as this firm carry a stock of 150 tons of castings, embracing over 3,500 different makes of stoves, ranges and furnaces, guarantee all repairs and are very prompt.

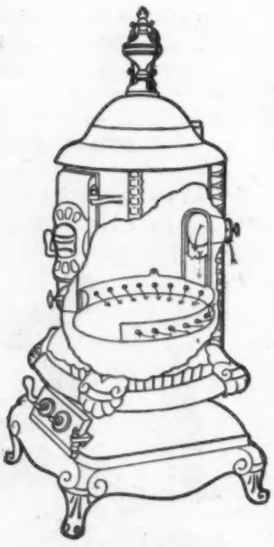
STEWART SPECIALTIES.

The Fuller-Warren Co., Milwaukee, Wis., embody a number of important special improvements in their line of stoves. A feature of all their coal hot blast stoves is the "Stewart" down-draft swinging hot blast attachment, for consuming smoke and gases in coal fuel. This attachment, which is shown in the accompanying cut, is perfectly self-acting and needs no adjustment of tube other than its own weight. It is free to swing in any direction. The tube is of cast iron with a uniform inside diameter, which gradually increases in thickness towards its lower end, where it approaches the fuel.



The Stewart "Down Draft" Swinging Hot Blast Attachment.

A number of unique features of special value are found in the Stewart Oak, for coal or wood or lignite. This stove has a jointless ash pit bottom cast in one piece on both round and square patterns. This Oak has interchangeable grates, patent perfect control draft regulator, spark arrester, large, double feed doors, protected by heavy perforated gas-burning lining, and ring hot blast. Their handsome 188 page catalogue of Stewart stoves and ranges will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."



Interior View Stewart Oak.

Powers & Williams, Streator, Ill., send us a little postal calling attention to the fact that they make a specialty of promptly furnishing to skylight manufacturers orders of the following kinds of glass cut to size, viz., three-sixteenths inch ribbed glass, quarter-inch rough glass, quarter-inch ribbed glass, three-eighths-inch rough glass, three-eighths-inch ribbed glass, also quarter-inch wire glass and ornamental skylight glass.

FUEL ECONOMIZER.

The accompanying cuts show the fuel economizer, manufactured by W. J. Burton & Co., Detroit, Mich. Fig. 1 shows the Economizer No. 3 without legs, and Fig. 2 shows the Economizer No. 4 with legs. The Economizer No. 3 is made without legs and is used

Fig. 1. Economizer, No. 3, without Legs.

in place of the second length of pipe above the stove. It forces the radiation of enough additional heat to make the room and adjoining ones warm and comfortable, although the stove is consuming a reduced amount of fuel. Fig. 2 shows the Economizer No. 4 made with

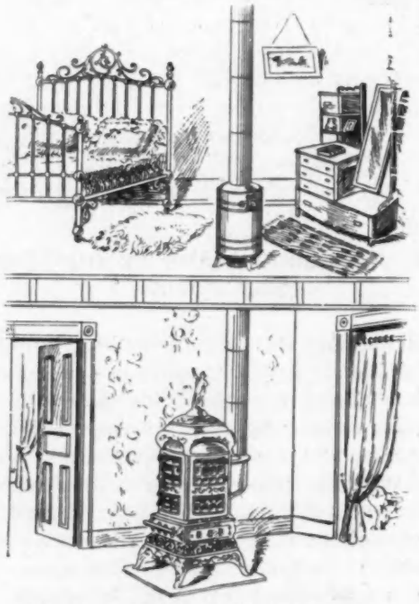


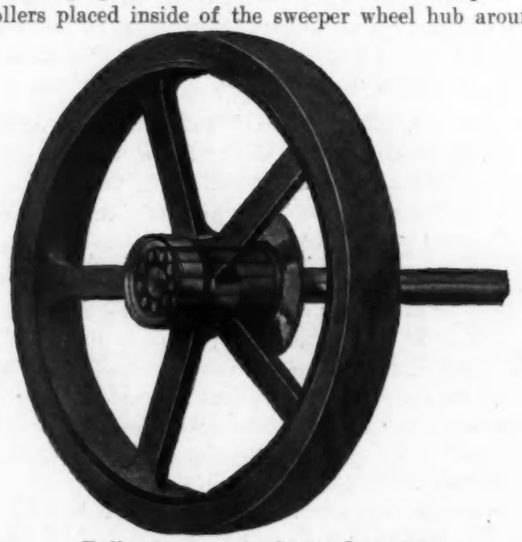
Fig. 2. Economizer, No. 4, with Legs.

legs, and used to heat any room through which the stove pipe passes, such as bath rooms, bed rooms, dining room, etc. The legs are easily removed when it is not desired to rest the Economizer on the floor.

Elmer E. Beideman, Albert D. Smith, Joseph A. Curren and Harry S. Boyer are the incorporators of the J. Frank Boyer Plumbing & Heating Co., Morristown, Pa., capitalized at $40,000.

ROLLER BEARING FOR CARPET SWEEPERS.

The National Sweeper Co., Marion, Ind., use the roller bearing, shown in the accompanying cut. This roller bearing, shown in the accompanying cut, in the manufacture of their superior line of carpet sweepers. This bearing is very simple and has no delicate parts to get out of order or wear out. The rollers are turned from high-grade steel. There are nine steel pins or rollers placed inside of the sweeper wheel hub around



Roller Bearing for Carpet Sweepers.

the axle. They are held in place by dust-proof caps, which keeps the bearing free from dust and dirt.

Another innovation of this company is their method of packing each sweeper in a card-board box or carton, doing away entirely with the old method of wrapping in paper and tieing with a string. This new method of packing protects the finish of the sweepers, makes them more convenient for the dealer to handle, makes them desirable shelf goods, and it makes a very attractive package to show to customers, and also a saving of time and labor to the dealer, as the sweepers can be delivered without rewrapping. This firm would be pleased to send their catalogue to the trade on application. When writing for same kindly add: "Saw it in THE AMERIACN ARTISAN."

MONARCH GAS HEATERS AND OVENS.

The Monarch Stove & Mfg. Co., Mansfield, O., send us a little booklet describing their Monarch heaters and Monarch asbestos lined ovens.

The Monarch Ventilator No. 164 has been improved for 1901 by the substitution of a cast iron fire box section instead of sheet steel.

Three 6-inch Russia iron radiator pipes, within which are located smaller tubes, each flattened at the lower end, form the back walls of the burner of the Monarch Triplex No. 63. The heated air passes up and around these tubes, heating also the current of air within.

In the Monarch Combination heater Nos. 67 and 68 all the heat not directly radiated from the asbestos back wall in ascending enters a top chamber, thence down the two outer rear flues to the lower chamber, and thence up the two middle flues and out. It has cast nickeled radiator top, nickel feet, foot rail, corner ornaments and polished brass bottom and side reflectors. It has handsomely embossed Russia iron body.

The Monarch radiators Nos. 4 R and 6 R have cast top base, feet and mica frames finished in brilliant aluminum. The radiator tubes are in Russia iron or ebony finish.

One of these catalogues will be forwarded the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

POETICAL PROFUSION.

The Abram Cox Stove Co., American and Dauphin streets, Philadelphia, for whom Chas. A. Rusco, 15-17-19 West Lake street, Chicago, is western manager, send us some novel advertising cards. The front of these cards all show a young lady with auburn hair and pink and blue dress, holding a cherry pie in her hand. A little slipping back of flaps shows this same young lady cooking this same pie on various of the cook stoves of this concern. On the rear of each card is different poetical compositions extolling the range shown on the reverse of the card. There are 14 of these poems, each of four stanzas. We subjoin some of these verses taken from different of these cards:

"Now we've a range well liked by all,
Popular as can be,
So we have given it the name
Of Herald Novelty."

* * *

"We have a range so finely built
That it fails not to appeal
To all shrewd buyers, and
We've named it the Ideal."

* * *

"Because it was, par excellence,
The best a range could be,
We choose for it the name,
Colonial Novelty."

The trade should write this firm for some of these interesting pictorial advertisements. When writing them kindly add: "Saw it in THE AMERICAN ARTISAN."

WILL THERE BE A SCARCITY OF STOVES?

Among the industries of Canada which have been sharing in the good times of late years, few have probably done so to a greater extent than the stove manufacturing industry, says the Canadian Hardware and Metal, Aug. 31.

During the last three or four weeks the manufacturers have been making delivery of orders booked some time ago. These deliveries have been so heavy that already the manufacturers have begun to make heavy draughts upon their stocks. As none of the firms have large stocks, it is almost certain that, if the present drain upon them is maintained, the experience of last year will be repeated in regard to the difficulty of filling orders before the season closes. As noted, some weeks ago, a slight rearrangement of prices was made early in the season, but taking it all around, values are practically the same as they were a year ago. The demand for the better class of stoves is steadily improving in Canada, and naturally the stoves are improving in finish and dress. Very few stoves are as plain as they were a year ago; and certainly they have a great many more useful appurtenances.

The Hardware Record.

Arkansas Retail Hardware Dealers' Association.

Pres., John M. Pitman, Prescott.
1st Vice-Pres., J. F. Maxey, Ozark.
2d Vice-Pres., T. B. Stewart, Newport.
Secy-Treas., J. A. Plummer, Marianna.
Executive Com.: H. Williams, Hot Springs, J. H. Boicourt, Little Rock, J. W. Lee, Fordyce.

Chicago Retail Hardware Dealers' Association.

Pres., D. McLaughlin.
Vice-Pres., H. E. Gnadt.
Sec., G. R. Lott.
Collector, John Hora.
Treas., J. L. Smith.

Hardware Merchants' and Manufacturers' Association of Philadelphia.

Pres., Hugh McCaffrey.
Vice- Pres., Wm. C. Peters.
Sec.-Treas., T. James Fernley.
Directors, William W. Supplee, Samuel Disston, John H. Griffith, James H. Ritter, William C. Peters, Thomas Devlin, Fayette R. Plumb, Hugh McCaffrey and T. James Fernley.

Illinois Retail Hardware Dealers' Association.

Pres., H. G. Cormick, Centralia.
Vice-Pres., Wm. Bittel, Peoria.
Sec., G. R. Lott, Chicago.
Treas., F. F. Porter, Chicago.
Ex. Com., Z. T. Miller, Bloomington; W. T. Gormley, Chicago; H. N. Murphy, Galesburg; C. Mauer, East St. Louis; C. Williams, Streator; L. Babst, Kankakee.

Indiana Retail Hardware Dealers' Association.

Pres., W. P. Lewis, New Albany.
Vice-Pres., Jas. L. Hutton, Portland.
Sec. and Treas., M. L. Corey, Argos.
Members Ex. Com., I. A. Sibley, South Bend; E. M. Bush, Evansville; W. H. Weed, Vincennes.

Indian Territory Retail Hardware Association.

Pres., Geo. W. Mowbray, Tulsa.
1st Vice-Pres., J. G. Smith, Canadian
2d Vice-Pres., Fred Parkinson, Wagoner.
Sec., Dick Miller, Poteau.
Treas., Sam R. Frazee, Vinita.

Iowa Retail Hardware Dealers' Association.

Pres., W. A. McIntire, Ottumwa.
Vice-Pres., E. G. Penrose, Tama.
Ex. Com., A. C. Heyman, Miles; L. Lindenberg, Dubuque; F. S. Narum, Waukon; E. G. Penrose, Tama; W. A. McIntire, Ottumwa; L. H. Kurtz, Des Moines; H. A. Cole, Council Bluffs; Harry Vincent, Ft. Dodge, W. H. Miller, Cherokee; M. W. Keating, Afton; Jacob Seither, Keokuk.

Kansas Hardware Dealers'Ass'n.

Pres., Geo. F. Andersen, St. Marys.
Vice-Pres., Oscar Rohhr, Topeka.
Sec., J. A. Cole, Topeka.
Ex. Com., James H. Hamilton, Arkansas City; E. I. King, Logan; T. H. Kiniry, Beloit; J. M. Walters; Robinson; F. W. Bartlett, Kansas City.

Kentucky Retail Hardware and Stove Dealers' Association.

Pres., Geo. Dehler, Louisville.
1st V.-P., J. S. Ogden, Ashland.
2nd V.-P., Chas. D. Winn, Paris.
Sec., Paul Wagner, Louisville.
Asst. Sec., Wm. Dehler, Louisville.
Treas., Henry Heick, Louisville.

Michigan Hardware Association.

Pres. H. C. Minnie, Eaton Rapids.
Vice-Pres., Geo. W. Bruske, Saginaw.
Sec., Fred H. Cozzens, Detroit.
Treas., Henry C. Weber, Detroit.
Ex. Com., Samuel Winchester, Jackson; Fred S. Cook, Fowlerville; C. E. Pipp, Ostego A. Harshaw, Delray; A. J. Scott, Marion City; James J. Potter, Alpena; Jno. W. Jochin, Ishpeming; Robt. G. Chandler, Coldwater; John Popp, Saginaw, F. S. Carlton, Calumet.

Minnesota Retail Hardware Association.

Pres., W. H. Tomlinson, LeSueur.
Vice-Pres., H. S. Cleveland, Minneapolis.
Sec., T. McCracken, Minneapolis.
Treas., G. M. Evanson, St. Peter.
Ex. Com., F. H Hunt, Red Lake Falls; B. J. Kernkamp, St. Paul; Julius Schmidt, Wabasha; W. H. Tomlinson, LeSueur; A. C. Hatch, Battle Lake; Jos. Mason, St. Peter; Chas. F. Ladner, St. Cloud; S. R. Nelson, Owatonna; E. H. Loyhed, Faribault.

Missouri Retail Stove and Hardware Dealers' Association.

Pres., B. F. Naylor, Marshall.
V.-P., Geo. R. Plowman, St. Louis.
Sec., F. N. Neudorff, St. Joseph.
Ex. Com., R. L. Hixon, Hannibal; F. A. Kannsteiner, St. Louis; J. W. Poland, Carrollton; W. A. Wingert, Kansas City.
Advisory Board, P. E. Harney Joplin; E. Stuelzing, Kansas City; J. M. Kenyon, Maitland; W. T. Shoop, Richmond; G. A. Pauly, St. Louis.

National Hardware Association.

Pres., R. W. Shapleigh, St. Louis.
Second Vice-Pres., Brace Hayden San Francisco.
Sec-Treas., T. James Fernley, Philadelphia.
Ex. Com., W. K. Belknap, Louisville; John C. Koch, Milwaukee; R. A. Kirk, St. Paul; Samuel A. Bigelow Boston; P. E. Strauss, Boston; J. D. Moore, Birmingham.

National Retail Hardware Dealers' Association.

Pres., W. P. Lewis, New Albany, Ind.
Vice-Pres., Geo. Hubbard, Flint, Mich.
Sec., M. L. Corey, Argus, Ind.
Treas., H. T. Helgeson, Milton N. D.
Ex. Com. Z. T. Miller, Bloomington, Ill.; Fred Neudorff, St. Joseph, Mo; I. A. Sibley, South Bend Ind.; H. A. Cole, Council Bluffs, Ia.; H. G. Cormick, Centralia, Ill.

North Dakota Retail Hardware Dealers' Association.

Pres., H. T. Helgesen, Milton.
Vice-Pres., H. N. Joy, Hamilton.
Treas., W. H. Pinkerton, Lakota.
Sec., C. N. Barnes, Grand Forks.
Ex. Com., H. Harrington, Fargo; W. W. Jamieson, Wahpeton; H. F. Strehlow, Casselton; I. L. Newgard, Grafton; H. B. Allen, Jamestown; H. A. Mae, Church's Ferry.

Ohio Hardware Association.

Pres., O. M. Scott, Marysville.
Vice-Pres., W. P. Bogardus, Mt. Vernon.
Cor. Sec., Geo. Gray, Coshocton.
Financial Sec., Will C. Jones, Columbus.
Treas., H. G. Woodward, Sidney.
Ex. Com., Geo. B. Meyer, Cincinnati; Geo. V. Guyton, Ada; H. F. Rahe, Cleveland; J. Rohrbacher Akron; A. H. Strome, Warsaw, Frank Winters, Lancaster; James B. Carson, Hamilton; R. Brown, Washton Court House.

Philadelphia Retail Hardware Dealers' Association.

Pres., Frank Schmidt.
Vice-Pres., Julius M. Aff.
Sec., T. B. Hendricksen.
Treas. Edward H. Shannon.
Trustees, Wm. E. Andrews, Lewis C. Claditg and Aaron I. Sanson.

St Louis Stove Dealers' Ass'n.

Pres., F. A. Kansteiner.
First Vice-Pres., Aug. Steinmeyer.
Second Vice Pres., Aug. Gruendler.
Sec., A. F. Geschwindner.
Treas., L. J. Boehi.

Southern Hardware Jobbers' Association.

Pres., J. D. Moore, Birmingham Ala.
1st Vice-Pres., F. A. Heitman. Houston, Tex.
2d Vice-Pres., Bruce Keener. Knoxville, Tenn.
Sec., C. B. Carter, Knoxville, Tenn.
Ex. Com., W. M. Crumley, Atlanta, Ga.; O. B. Barker, Lynchburg, Va.; Chas. H. Ireland, Greensboro, N. C.; B. F. Eshleman, New Orleans.

Texas Hardware Jobbers' Association.

Pres., F. A. Heitman, Houston.
1st Vice-Pres., J. C. Bering, Houston.
2d Vice-Pres., Ed. Strauss, Waco
Sec.-Treas., Robert Eikel, Houston.
Ex. Com., Jas. Moroney, Dallas; R. F. Bell, Weatherford; W. L. Sanford, Sherman; A. E. Goeth, Austin.

Wisconsin Retail Hardware Dealers' Association.

Pres., John Hessel, Antigo.
Vice-Pres., Otto Schlafer, Appleton
Sec., C. A. Peck, Berlin.
Treas., George Leverenz, New Holstein.
Ex. Com., Henry Droegkamp, Milwaukee; Arthur Heins, Tigerton; E. H. Ramm, New London; J. Wilkie, Fond du Lac.

The Collier Shovel Co., Washington, Ind., have consolidated with the Chicago Steel Manufacturing Co., Hammond, Ind.

Frederick Forster, Albert Musser and Chas. S. Ackley are the incorporators of the New Century Gas Fixture Manufacturing & Fit Metal Co., Camden, N. J., capitalized at $100,000.

M. R. O'Neill, the Fargo, N. D., hardware dealer, is putting in a branch store at Sisseton, S. D., under the style of O'Neill & Gilman, and would be pleased to receive catalogues from the trade.

Wm. H. Whiting, James Walker, Jos. W. Abbott, Chas. H. Anderson and W. T. Kuhns are the incorporators of the Maryland Shovel & Mfg. Co., Baltimore, Md., capitalized at $25,000, to manufacture shovels and other sheet metal goods.

Thomas A. Nichols, Stronghurst, Ill., has purchased the Frank Kupper hardware stock at Burlington, Ia. For the past seven years, or since the death of Mr. Kupper, this business has been carried on by Mrs. Henrietta E. Kupper, whose magnificent work on behalf of the Iowa Retail Hardware Dealers' Association has given her a wide reputation in the western hardware world. Mrs. Kupper will devote the immediate future to a well-earned rest and to the restoration of her shattered health.

The John Pritzlaff Hardware Co., Milwaukee, Wis., send us their catalogue of sporting goods for the season of 1901. This shows a fine line of double barrel, breech-loading shot guns, single barrel repeating shot guns, single barrel shot guns, single shot rifles, repeating rifles, carbines, target rifles, air rifles, target pistols, revolvers, rifle sights, barrel reflectors, metallic cartridges, blank cartridges, loaded paper shells, gun wads, primers, shot cases, black powder, smokeless powder, blasting powder, gun implements, rifle cleaners, reloading tools, bullets, gun covers, hunting coats, targets, decoy ducks, hunting knives, repairs, etc.

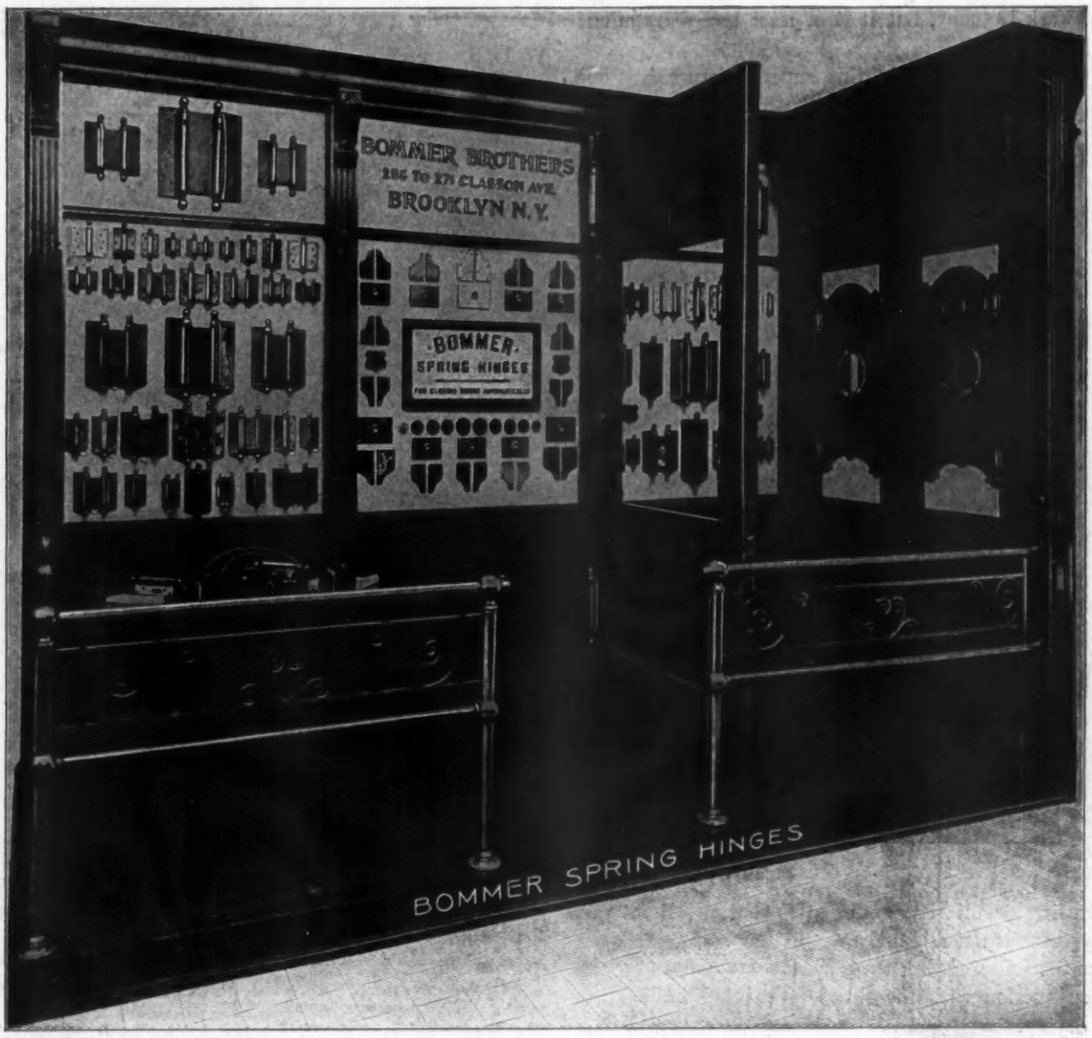
A feature of this catalogue is the comprehensive list of repairs for breech and muzzle loading. These include a large number of back-action gun locks, forward-action gun locks, round body hammers, circular hammers, concave circular hammers, tumbler pins, side pins, cross pins, inside lock screws, tumbler swivels, top lever springs, brass front sights, main springs, spring plungers, nitro plungers, solid plungers, plunger springs, plunger seats, milled extractors, fore-end irons, triggers, breech-loading swivel tumblers, rubber butt plates, guards and trigger plates, revolving trigger springs.

There are a number of specialties in this catalogue. Among these is the reverse head bench closer. This closer is accurately made and will crimp all shells alike. The spring plunger which presses against the wad holds it firmly in place while the shell is being crimped. The adjustable stop is provided so that the shell is crimped at even depth and to any desired length by the operator. The automatic extractor draws the shell from the closer when the lever is moved outward. The crimping head is made of steel and is reversible. It is provided with hardened pins for crimping either square or round crimp.

PAN- AMERICAN EXHIBIT.

Bommer Bros., 257-271 Classon avenue, Brooklyn, N. Y., have one of the best designed and richest hardware exhibits in the Manufacturers' Building at the Pan-American Exposition, which shows the Bommer spring hinges and Bommer ball bearing floor hinge in all styles and finishes, displayed upon finely contrasting panels, set off by a carved mahogany fixture.

There is one exceptionally heavy solid mahogany swinging door, 4 feet wide by 8½ feet high and 3 inches thick, hung on 12-inch solid bronze metal double acting hinges. Two double acting cafe doors are hung in place of the usual plate glass. There are also two mahogany vestibule doors, one swinging double action and the other single action, upon bronze metal Bommer ball bearing floor hinges. These doors have single action cafe doors in place of panels. The ease and lightness of action of all these doors is especially notable. There are also some mounted floor hinges conveniently placed for handling and examination, and also some regular Bommer spring hinges made to take apart, showing the interior steel construction and demonstrating why that easy motion is given to the door for which Bommer spring hinges have become famous.



Bommer Bros.' Pan-American Exhibit.

ARRAS CREAM SEPARATOR.

The accompanying cut shows the Arras Cream Separator, manufactured by the Arras Cream Separator Co., Bluffton, O. This separator, it is claimed, produces a thorough separation of the cream from milk without diluting and without any machinery. They are made in four sizes to hold 4, 6, 8 and 10 gallons of milk respectively. The capacity of outer can is double that of the milk cans. The inner or milk cans are made of the best grade of IXXX bright tin plates, and are enameled on the outside. The inner copper cans are made of 14 oz. copper and are thoroughly tinned on the inside, which makes them most durable. The outer water, or cooling, cans are made of the best grade of Apollo B. B. galvanized iron, and are stencilled and nicely striped. The separators are so constructed that the inner cans may be detached in one minute if necessary in case of repairing. They are supplied with two faucets, one for milk and cream, and the other for drawing off the water, and have met with marked favor from the trade.

Arras Cream Separator.

A STRIKING PICTURE.

The Peters Cartridge Co., Cincinnati, O., send us a magnificent poster, 24x23 inches in dimensions, set in a three-inch Flemish oak frame, showing their magnificent works in the suburbs of Cincinnati, with the Little Miami river in the foreground. This picture is a masterpiece of up-to-date lithographic work, and it makes the three-color pictures, of which there are so many to be seen nowadays, seem more or less out of date, as eleven distinct colors can be easily seen in this marvellous creation. This picture, judged from a technical standpoint alone, is interesting as a fact, but more so as a prophecy. The lithographic art is taking great strides, and the wonder of today is the commonplace of tomorrow. The day is undoubtedly coming when eleven-color work will be as common as three-color work is today, but it is at least two years off, if not further.

The plant shown in this superb picture has one interesting peculiarity, and that is that in all its vast space there is not a single fire. A few stacks stick out above the building, but these are merely outlets for use in conjunction with the steam pipes used for heating and drying.

Of course, this titanic plant, with its 700 hands, busy in felt factories, shot towers, fulminate works, primer factories, metallic shell factories, paper shell factories and loading factories, requires a vast amount of power. In fact, they do have the use of the power generated by 700 h. p. This power is water power, generated across the Little Miami river and conveyed across the river by means of the latest and most improved system of electrical transmission.

This firm have quite a number of these large size, handsomely lithographed colortypes, and as long as they last they would be pleased to send them to the trade on application. When writing for same kindly add: "Saw it in THE AMERICAN ARTISAN."

Reduced Fac Simile of Peters Cartridge Co.'s Poster.

BUSINESS CHANGES.

NEW FIRMS.

Tomahawk, Wis.—The Northern Hardware Co.
Madison, Wis.—Stephenson & Studeman.
Ceylon, Minn.—Wade & St. John.
New Richmond, Minn.—Wencel Bruzek.
Mazeppa, Minn.—Joe Reiland and John Pescheck.
Ripon, Wis.—The Ripon Hardware Co.

CHANGES.

Ceylon, Minn.—Wade & St. John succeed Wade & Rademacher.

Iona, Minn.—Johnson Bros. have sold their stock of hardware, the purchase being divided between W. B. Leo and Wild & Spaulding.

Sheboygan, Wis.—E. Williams will be the successor of W. H. Sprangers.

Conrad, Wis.—Leslie & Trumble succeed H. F. Leslie.

Delhi, Minn.—F. J. Tibbetts succeeds Chas. O. Borg in the hardware business.

Cokato, Minn.—John Nygren succeeds Theo. Almquist.

Albert Lea, Minn.—Higgins Wagatt Hardware Co. succeed J. F. Wohlhuter.

Maynard, Ark.—J. C. Phipps & Son succeed Wright Bros.

Elba, Ala.—Paulk & Edwards have dissolved partnership. Edwards & Edwards are the successors.

Vine Grove, Ky.—Coffman & Watson have dissolved business in the agricultural and implement business. W. A. Coffman will continue the business.

Huntsville, Tex.—The entire business of The J. S. Dunlay Hardware Co. has been sold out to Bernard Repsdorph, proprietor of The Repsdorph Tent and Awning Co.

Heyworth, Ill.—The firm of Brown & Greenlee, hardware and implement dealers, has been dissolved by mutual consent, Thomas W. Brown retiring and J. D. Greenlee remaining as sole proprietor.

Advertising Department.

Our readers are invited to send in copies of their advertisements in the local press for criticism. All communications should be addressed to the "Advertising Department" of THE AMERICAN ARTISAN.

The announcement of the Newport Builders' Supply & Hardware Co., Newport, Ark., is not one calculated to draw a large amount of business. Happily, the

Newport Builders' Supply and ...Hardware Company...

DEALERS IN

Builders' Hardware, Implements and General Supplies.

vast range of hardware advertising is immeasurably in advance of this.

The query that naturally arises in connection with this advertisement from a Springfield (Tenn.) paper

For sale by BELL & DOWLEN, Springfield, Tenn.

is as to the party paying for it. If the Phillips & Buttorff Manufacturing Co. pay the bills they are certainly giving very effective help to the local firm handling their goods. If Bell & Dowlen, Springfield, Tenn., are footing the bills they are acting unwisely, as the space should be used to stamp their own individuality in their community and not that of the manufacturer they represent. If trade relations were permanent it would be all right for the dealer to push the manufacturer's name to the front, but as they often are not, the results of the dealer's work in local advertising frequently is transferred to some competitor with the change of an agency. Dealers should freely use electros and other advertising matter sent out by manufacturers, but they should take care to see that, in their advertising work, they are pushing their own interests and not those of the goods they handle.

The Brown Hardware Co., Belton, Tex., has a nice looking advertisement, although it is susceptible to a large number of improvements. It is a mistake to

NOTHING BUT THE BEST!

Not how Cheap, But how Good!

The above is our Motto in our Implement and Vehicle Department.

FISHING TACKLE.

Complete Lines,	5, 10 and 15c.
Cotton Lines,	2 to 10c
Linen Lines,	5 to 20c
Silk Lines,	25c to 2.00
Poles,	5c to 6.00
Reels,	25c to 4.50

Hooks at any old price.

BASE BALL GOODS.

Base Balls,	5c to 1.50
Catchers' Mitts,	25c to 1.50
Fielders' Mitts,	50c to 3.00
Bats,	5c to 1.50
Masks,	25c to 4.00

Largest Assortment. Lowest Prices.

Standard Cultivators, Newton Wagons, Cooper Wagons, Planters, Walking Plows, Middle Breakers, Texas Stocks, Harrows, Double Shovels, Sweeps, Clevices, Etc.

UNIVERSAL STOVES AND RANGES ARE THE BEST IN THE UNIVERSE

BROWN HARDWARE CO.

The Cut Price Housefurnishers,

BELTON, TEXAS.

say "Not how cheap; but, how good, is our motto in our implement and vehicle department." By implication this would mean that it was not their motto in other departments of their business. There is plenty of room for descriptive matter in this announcement.

MR. CLEVELAND ON FISHING.

Mr. Cleveland's next contribution to The Saturday Evening Post, of Philadelphia, will be an extremely readable paper, in which he sings the praises of his favorite sport. "The Reflections of a Fisherman" shows very pleasantly the genial "unofficial" side of the former president.

The Marlboro Hardware Co., Bennettsville, S. C., have increased their capital stock from $3,000 to $10,000.

Heating and Ventilating.

The Calvin Heat Indicator Co., capitalized at $10,000, is a new Toledo, O., concern.

Wellington & Miller are a new firm of Bridgeport, Conn., steam and hot water heating men.

The Vapor Heating Co., York, Pa., have increased their capital stock from $25,000 to $50,000.

Edwin Hawes is succeeded in the steam heating business at Worcester, Mass., by Edwin Hawes & Co.

The Coleman-McGar Co. are a new Bristol, Conn., concern, capitalized at $4,000 for carrying on a general steam fitting business.

W. H. Bigelow, S. A. Abbey and T. A. Conklin Jr. are the incorporators of the Carolina Plumbing & Heating Co., Charlotte, N. C.

John Plain, J. H. Plain and A. H. Clark are the incorporators of the Aurora Steam Heating Co., Aurora, Ill., incorporated with a capital stock of $25,000.

The Harrison Plumbing & Heating Co. are succeeded in the plumbing and heating business at Schenectady, N. Y., by the Ridgway & Tyler Co.

Geo. R. Allison, John W. Avery and Ralph McKee are the incorporators of the Hundley Heating & Furnace Co., Jersey City, N. J., capitalized at $100,000.

M. C. Davidson, C. E. Ehrhart and D. D. Ehrhart are the incorporators of the Davidson Heating & Construction Co., Hanover, Pa., capitalized at $15,000.

W. H. Denslow, C. P. Hutchins and Orville J. Denslow are the incorporators of the W. H. Denslow Co., Waverly, N. Y., capitalized at $20,000, for the manufacture of heaters.

The Wireton Heating Co., 40 Dearborn street, Chicago, have had a marked success in their sale of the Wireton automatic time draft. This is a comparatively simple affair, a pivoted dog in conjunction with a ratchet constituting its entire mechanism. It includes a regulator, clock, 36 feet jack chain, 5 pulleys and 2 large screws. This automatic device is designed for turning on the draft of a furnace, steam or hot water boiler.

The Utica Heater Co., Utica, N. Y., for whom the Chicago Heater & Supply Co., 54 Dearborn street, Chicago, are western managers, are manufacturers of the popular New Superior and Utica heaters which have extra deep ash pit, large fire pot and immense grate areas and combustion chambers. They have ornamental shield front, are mounted low down, and are fitted with improved gas ring for burning natural gas, or with new hot blast attachment for soft coal. They are provided with steel or cast radiator.

R. J. Schwab & Sons Co., Milwaukee, Wis., have made some extensive additions to their large iron work and furnace plant. They have put in two molding floors, each 39 feet high and 118x44 and 102x37 feet in dimensions, respectively. They have two electric cranes over these floors, one a five-ton and the other a ten-ton crane. A feature of their mechanical equipment is their overhead tramway leading to their warehouse, the first of the kind in Milwaukee. Their new buildings give them a frontage of 364 feet on Clinton street. Their new buildings are all built on the most modern and up-to-date lines, and are absolutely fire proof. They have room to accommodate 100 molders. They are at present working 45 molders, but will very shortly raise this number to 80.

A FURNACE MEN'S BAND.

The Schill Bros. Co., Crestline, O., have an enterprising number of employes who have organized a band which they style "The Schill Bros. Co. Band." There are 18 furnace makers in this musical company, and they are all nattily arrayed in handsome uniforms.

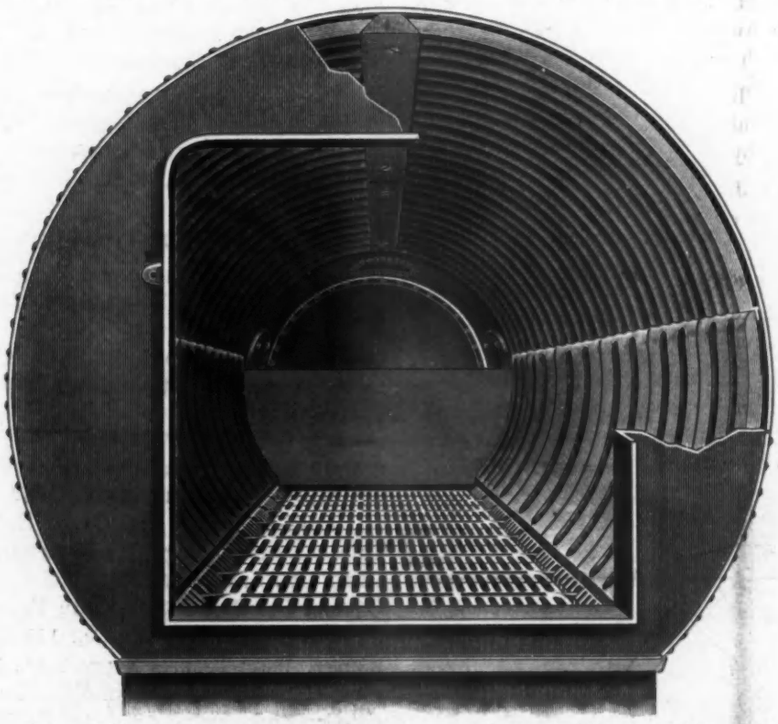
Every man around the Schill works, from manager down to office boy, swears by this band. This fidelity to the fortunes of this organization is not confined to their fellow employes and employers, as there is not a patriotic citizen of Crestline who does not consider that this band can give cards and spades to any similar organization in the country.

MUELLER SCHOOL AND CHURCH FURNACE.

The L. J. Mueller Furnace Co., 191 Reed street, Milwaukee, Wis., are manufacturers of the Mueller school and church furnace, shown in the accompanying cut. These heaters contain an enormous amount of direct heating surface. The products of combustion after leaving the large fire box, sweep into lower flues on each side, connected to the fire box by heavy cast iron elbows, thence through cast iron tee connections fully riveted, and each joint and connection set in as-flues give this furnace 56 feet of fire travel, which abstracts all the heat available from fuel consumed, it is claimed.

The fire box is also connected to large center flue by heavy cast iron collar provided with damper, which, when open, makes direct connection with the smoke pipe.

The body is made of two sheets of No. 8 boiler steel, with closely riveted joints, and bringing these joints back of heavy cast iron liners extending the entire length of fire box. The front and rear heads are riveted to the body in the same manner as tubular and fire box boilers, making a perfectly gas tight joint. The flues are made of No. 16 sheet steel, also closely and carefully riveted, and each joint and connection set in asbestos packing, making all joints throughout the entire furnace absolutely gas tight, it is claimed. The rear end of the six smaller flues are closed by cast iron covers, held in place by bolts. All flues are easily cleaned from front of furnace by removing clean out covers. These clean outs, extending through brickwork, obviate all liability of gas escaping into air chamber.



Interior View No. 90 A Showing Grate and Hollow Fire Box Liners.

According to a press dispatch Dunning & Co., Cincinnati, O., dealers in heating apparatus, assigned Sept. 10, with assets of $2,000 and liabilities of $4,000.

RED TAPE.

John A. Walker, vice president and general manager of the Joseph Dixon Crucible Co., of Jersey City, N. J., told a New York Tribune reporter recently of a trying experience he had while in Europe last summer. "I was put to much inconvenience last fall by a difference in the matter of dating in Belgium and in Germany. I had purchased a railway ticket at the tourist bureau in Brussels, limited to November 10. The bureau agent, following the custom that prevails in Belgium, stamped the ticket 10-11-1900, exactly the opposite way from that which we would stamp it in this country and different from the custom in Germany. At the Brussels station the ticket was received, clipped in due form and returned to me without comment. At the Cologne station the ticket was refused. To the German official it read October 11, instead of November 10. The thirty day limit of the ticket thus being up, he simply would not take the ticket. Thereupon we went to the official in charge of the station, explained to him the way in which the ticket had received the date, and appealed to him to rectify the error. We made a swift descent from frying pan to fire by so doing for he promptly sent for the coupons reading from the German frontier, which had already been torn off the tickets. For these he made us refund in cash and compelled us to purchase new tickets for the remainder of the journey to Berlin."

The Meilink Mfg. Co., Toledo, O., send us an interesting circular explaining the advantages of Melcher's shower yoke. This yoke fits the body, is the shape of the body and showers the whole body at once. It opens up and is put on like a collar. This firm will be pleased to send the trade a descriptive booklet on application.

Tinshop.

COFFEE POT LIP.

TO THE AMERICAN ARTISAN.

I submit the following pattern for a coffee pot lip:

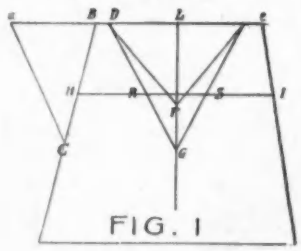
Fig. 1 represents coffee pot and lip. A B C is size of lip required, D E is width of lip at top, F L is equal to A B G L—B C.

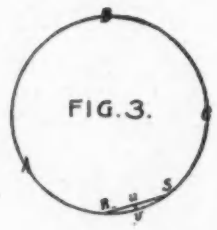
Fig. 2. Draw lines X Y and M N at right angles, span divider's distance F E or F D, Fig. 1, and mark points D and E with one leg of dividers at E or D span until the other leg intersects line X Y at C.

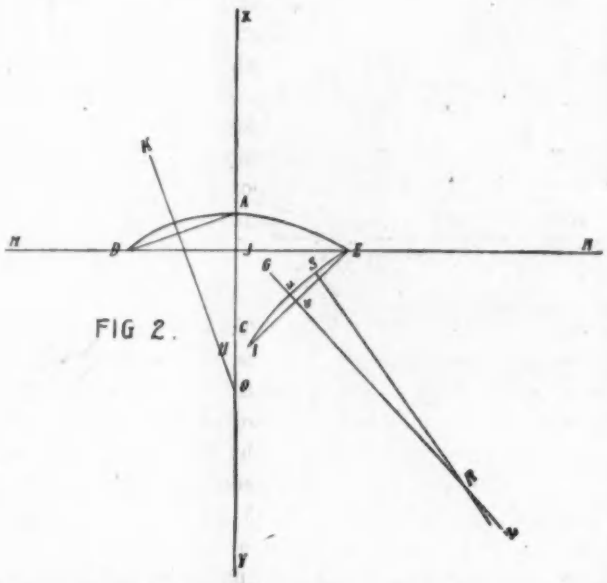
Then take distance C A, Fig. 1 and from C, Fig. 2, span to A on line X Y. Draw line D A and through its center draw at right angles line K O and extend until it intersects line X Y at O.

Span dividers D O, and with O as center strike arc D A E. Make line C 1 at right angles to X Y and about 1/8" long. Draw 1 E and through its center at right-angles draw G L.

Now, on Fig. 1, draw line H I through the center







of line G L and strike a circle with a diameter equal to H I, which is Fig. 3.

Then space dividers R S, Fig. 1, and space R S on Fig. 3; draw line R S, Fig. 3, and through its center at right-angles draw U V. Span dividers U V and from the intersection of lines 1 E and G L, Fig. 2, space V U. Draw line U E and through its center at right angles draw S R until it intersects lines G L at R.

Now with R as center and U R as radii strike arc I U E, and with the same radii connect D and H and you have a correct pattern. If you like you can strike semi-circle at H I with C as center.

Chicago, Sept. 11, 1901. B. L. B.

HE RECEIVED NO ANSWER.

TO THE AMERICAN ARTISAN.

There appeared in your "Help Want" columns of Aug. 24th, last month, a first-class furnace man "wanted," for Portland, Ore. I answered the advertisement. What kind of people are they who put such advertisements in a responsible paper and then are too penurious to answer a respectful proposition. I have sold out my stock and am going to a large place. I have become tired of little one-horse towns, where there is not capital nor energy to make a town grow.

GEO. W. JOHNSTON.

Farmington, Ill., Sept. 11, 1901.

NOTES AND QUERIES.

ANEMOMETERS.

From E. R. Bennett, Flandreau, S. D.

Where can I buy anemometers?

Ans.—B. F. Sturtevant Co., Boston, Mass.

HYGROMETERS.

From E. R. Bennett, Flandreau, S. D.

Where can I buy hygrometers?

Ans.—Thos. Hall & Son, 79 Franklin street, Boston, Mass.

THERMOMETERS FOR MEASURING HIGH TEMPERATURES.

From E. R. Bennett, Flandreau, S. D.

Where can I buy thermometers for measuring high temperatures?

Ans.—A. Weiskopf, 69 S. Canal street, Chicago, makes thermometers that measure up to 1,000 degrees Fahrenheit.

STOOLS.

From H. H. & T. H. Graham, Pinewood, Tenn.

Where can we buy store stools?

Ans.—American Desk Co., 18 E. Van Buren street, Chicago; Archer Mfg. Co., Rochester, N. Y.; Crocker Chair Co., Sheboygan, Wis.; John Danner Mfg. Co., Canton, O.; Gold Medal Camp Furn. & Novelty Co., Racine, Wis.; B. A. Kipp Co., 115 Huron street, Milwaukee, Wis.; Francis Neppert Jr., 390 Canal street, New York; Racine Hardware Co., Racine, Wis.; Scarritt-Comstock Furn. Co., 414 N. Fourth street, St. Louis, Mo.; Alfred E. Stacey, Elbridge, N. Y.

BOOK ON WATER CLOSETS.

From Ray Gribble, Jamestown, Pa.

Where can I buy a book telling how to put in soil pipe water closets.

Ans.—Water Closets, by Glenn Brown, price $1.00, is for sale by Daniel Stern, 69 Dearborn street, Chicago.

STEEL DIES FOR CUTLERY STENCILS.

From D. Frame & Son, North Manchester, Ind.

Where can I buy steel dies for cutlery stencils?

Ans.—Niagara Machine & Tool Co., Buffalo, N. Y.; Danielson Machine & Tool Co., Cleveland, O.

PLANS FOR CHEAP COTTAGES.

From F. P. Kerr, Lyons, Col.

Would like name of a good architectural book giving plans for cheap cottages?

Ans.—Every Man a Complete Builder, by R. Palliser, price $1.00; Practical Architecture, by R. S. Burn, price, $2.00; The Suburban Cottage, by W. B.

Tuthill, price, $1.00; Cottages, by W. P. Gerhard, price $1.00; American Houses, by Samuel Sloan, price 75 cents, are for sale by Daniel Stern, 69 Dearborn street, Chicago.

MASCOT STEEL RANGE.

From Geo. S. Lister, Manchester, Ia.

Who makes the Mascot steel range?

Ans.—Culter & Proctor Stove Co., Peoria, Ill.

BOOKS ON PAINTS.

From W. J. Leas, Paris, Ill.

Would like books which treat on making colors for paints?

Ans.—Hints for Painters, Decorators and Paper Hangers, price 25 cents; Everybody's Paint Book, $1.00; for sale by Daniel Stern, 69 Dearborn street, Chicago.

ITEMS.

Thomas Justice is a new Norwalk, O., tinner.

W. E. Cornell, a Lakeville, Conn., tinsmith, has sold out to Brinton & Jacobi.

A company has been organized to erect a new sheet mill at Springfield, O.

Clarke Merchant, president of Merchant & Co., Inc., Philadelphia, Pa., has returned from his summer vacation at Magnolia, Mass.

The statement that the Sharon Tin Plate Co., Sharon, Pa., are about to put up ten additional tin mills has been branded as untrue.

The twelve-hour record at the Sharon Steel Co.'s blowing mill at Sharon, Pa., was broken Sept. 9, when 371 tons of billets were rolled.

Fred Van Nortwick, Morris L. Zimmerman and Emanuel J. Lupin are the incorporators of the Penn Metal Co., Jersey City, N. J., capitalized at $750,000.

H. C. Reymer petitioned one of the Pittsburg courts on Sept. 10th, for a receiver for the Star Enameling & Stamping Co., of that city. He places the liabilities of this concern at $44,000, and its assets at $80,000.

The Pope Tin Plate Co., Steubenville, O., are putting up a 12-mill tin plate plant. The main building, which will contain the hot mills, will be 380 feet long and 80 feet wide. A second building will be 360x40 feet, a third 300x75 feet and a fourth 180x25 feet.

Ed. T. Burgess, of the Burgess Soldering Furnace Co., Columbus, O., has returned home from his summer vacation at Columbus Beach, Mich. Mr. Burgess has enjoyed some fine fishing and is a fine walking testimonial to the invigorating climate of Indian River.

The New Castle Stamping Co., New Castle, Pa., are busily engaged in erecting an extensive plant. Their enameling department will be a structure 300x80 feet in dimensions. Their machine shop and stamping department will be 206x80 feet and the pickling house will be 75x50 feet.

Berger Bros., 231-237 Arch street, Philadelphia, Pa., are erecting a spacious warehouse on 100-106 Bread street, that city, to accommodate their rapidly growing business. This new warehouse will be of the most substantial and up-to-date construction, 5 stories high and 55x75 feet in dimensions. This will give them nearly 21,000 additional square feet of storage space and will enable them to carry a much larger line of stocks than at present.

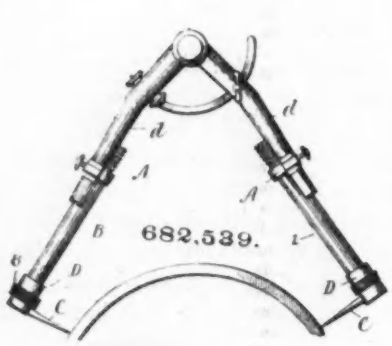
The Lisk Manufacturing Co., Ltd., Canandaigua, N. Y., makers of Lisk's patent anti-rusting tinware, are making a drive on their extra heavy 30 and 40 quart retinned stamped dish pans, made of best quality IXXXX and IXXXXXX American AAAA open hearth charcoal plate, coated with this firm's anti-rust composition and two heavy coats of pure tin. They are warranted not to rust. They are wired with No. 7 coppered wire and have extra large and heavy Lisk patent handles.

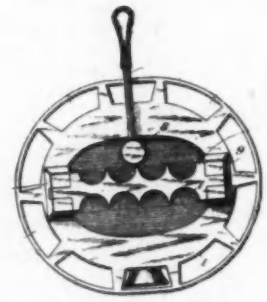
W. M. Esterly, for the past fifteen years with The J. M. & L. A. Osborn Co., Cleveland, O., has left them and gone into partnership with J. E. Mannen, under the style of Mannen & Esterly. This firm have a large manufacturing plant at 811-813 St. Clair street, Cleveland, O., and are making a full line of plain and decorated cans, confectioners' and bakers' work, safety deposit boxes for banks, etc. They will make a specialty of japanning and have facilities for taking care of all work in the tin, copper and sheet metal line.

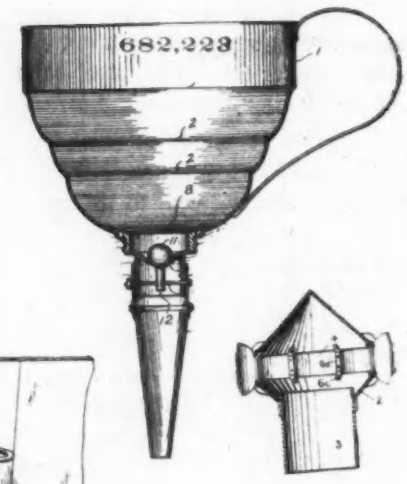
Powers Bros., Streator, Ill., are manufacturers of the Powers' Automatic Chimney Top, in which all bearing is on pivot next to cover, where the weight is. A brace at the bottom prevents the cover from rubbing the stack. Wind blowing past sides of cover (and not through cover,) creates a vacuum, thus increasing the draft. This cover stops rain, smoke and soot from blowing down the chimney. The Powers is the best braced, most durable, and positively most perfect chimney top on the market, it is claimed. They were specified and used on the principal World's Fair buildings and are used on boats, cars, factories, and residences throughout the United States and Canada with universal satisfaction.

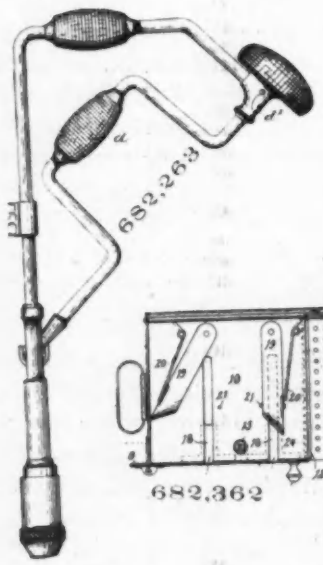
Merchant & Co., Inc., Phildalphia, Pa., have brought suit against the Pan-American Exposition Company for $9,000 damages for alleged breach of contract. The allegation of this Philadelphia firm is that Oct. 18 the Exposition authorities entered into a contract with this firm whereby Merchant & Co., were to furnish all the metal tile used for roofing by the exposition at the rate of $6.95 a square for ordinary roofing and $12.00 a square for graduated tile for use on conical surfaces. The company decided to use this roofing on the Service Building. It was agreed says the complaint, that if, after the Service Building was finished, the company decided not to use the metal tiling on the other buildings, the company would pay Merchant & Co. at the additional rate of $1 a square for that used on the Service Building. The metal tile was laid on the Service Building and paid for at the rates agreed upon. Then the exposition authorities decided not to use it on the other buildings, and it is alleged entered into a contract with other builders for the same kind of tiling, ordering in all about 5,000 squares, or 500,000 square feet. Merchant & Co. say they stood ready to fulfill their part of the contract, but the company refused to let them deliver the goods.

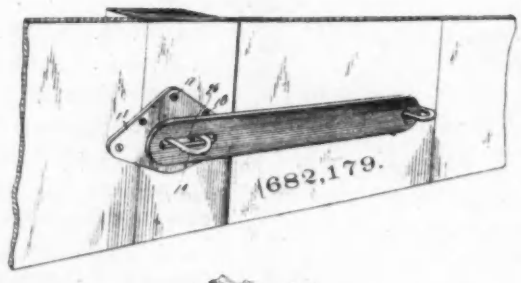
Patents.

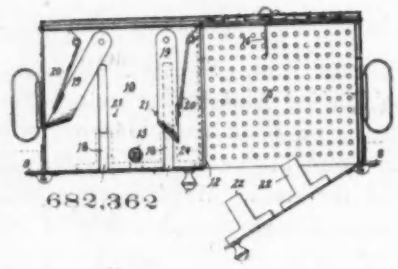


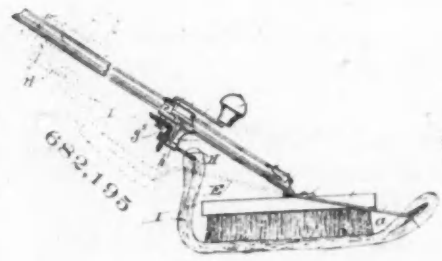


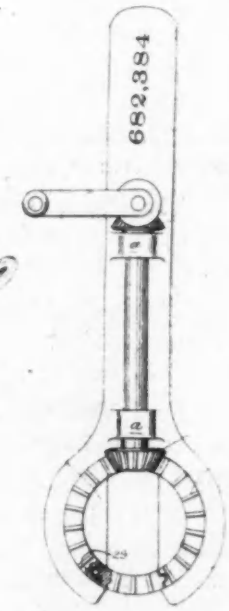


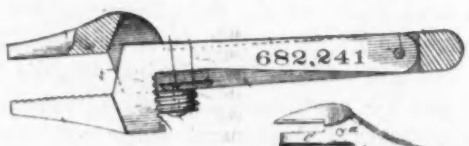


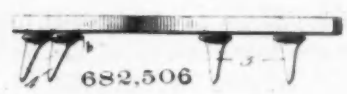












682,539—Compasses. Daniel Freuler, Joilet, Ill.

682,223—Measuring funnel and strainer. Gotlieb Neudecker, Chicago, Ill.

682,463—Fire pot. John W. Gheen, Portland, Ore.

682,179—Hasp lock. Ira C. Drake, Orting, Wash.

682,430—Chimney cowl. Edward A. Sanders, Saginaw, Mich.

682,263—Bit brace. Charles S. Du Mont, Buffalo, N. Y.

682,241—Wrench. Manly Cooke, Vista, Ia.

682,362—Flat iron heater. Carl A. Landgren, Kenosha, Wis.

682,195—Combined mop and brush. Edward Hilker, Chicago, Ill.

682,384—Wrench. James D. McFarland Jr., San Francisco, Cal.

682,531—Can opener. Noe Cloutier, Attleboro, Mass.

682,506—Horseshoe. Otto Swanstrom, Frazee, Minn.

OUR SEATS OF LEARNING.

Today there are 629 universities and colleges and 43 schools of technology in the United States. The total value of the property possessed by institutions for higher education amounts to $342,888,361, a gain in one year of $31,000,000. The endowment fund amounts to $154,120,590. The total income for the year 1899-1900, benefactions excluded, amounted to $27,739,154. The value of gifts and bequests during the year 1898-99 amounted to $21,925,436. Some $2,500 is invested for each student who is now enjoying the advantages of any of the institutions of learning. Classical courses claim the greater number of students —35,595 out of 147,164—while 21,860 were taking general culture courses, 9,858 general science courses, 2,593 instruction in agriculture, 4,376 in mechanical engineering, 2,550 in civil engineering, and 2,320 in electrical engineering, 1,032 students were studying mining engineering, 627 architecture, 9,501 pedagogy, and 6,698 were taking business courses. The number of degrees conferred during 1899-1900 for work done was 15,087—10,794 on men and 4,293 on women. Thirty-eight different varieties of degrees were conferred, and in some cases only one candidate received a degree—musical doctor, for example; 735 honorary degrees were conferred. In 1872 the number of students to each 1,000,000 of population was 573; in 1880 it had increased to 770, in 1890 to 850, in 1893 to 1,037, while in 1899 the number was 1,196.—Scientific American.

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WATERPROOF BLUEPRINTS.

Those who have experienced the annoyance of having blueprints discolored and blurred by rain, droppers in mines, and moisture in general, will appreciate a simple and inexpensive method of waterproofing the prints which renders them completely impervious to weather and water. The waterproofing medium is refined paraffin, and may be applied by immersing the print in the melted wax, or more conveniently as follows: Immerse in melted paraffin until saturated a number of pieces of an absorbent cloth a foot or more square, and when withdrawn and cooled they are ready for use at any time. To apply to a blueprint, spread one of the saturated cloths on a smooth surface, place the dry print on it with a second waxed cloth on top, and iron with a moderately hot flat-iron. The paper immediately absorbs paraffin until saturated and becomes translucent and highly waterproofed. The lines of the print are intensified by the process, and there is no shrinking or distortion. As the wax is withdrawn from the cloths, more can be added by melting small pieces directly under the hot iron. By immersing the print in a bath of melted paraffin the process is hastened, but the ironing is necessary to remove the surplus wax from the surface, unless the paper is to be directly exposed to the weather and not to be handled. The irons can be heated in most offices by gas or over a lamp, and a supply of saturated cloths obviates the necessity of the bath.

This process which was originally applied to blue prints to be carried by the engineer corps in wet mines, is equally applicable to any kind of paper, and is convenient for water-proofing typewritten or other notices to be posted up and exposed to the weather.—Mines and Minerals.

HARDENING STEEL.

The following is a process much employed in Switzerland for hardening steel intended to be used for tools: Mix well together four parts of resin and two parts of whale oil in an appropriate receptacle, and add one part of hot tallow. Immerse in this mass the articles to be hardened, having previously reduced them to a cherry-red heat, and leave them in the solution until they become completely cold. They are afterwards subjected to a temperate fire in the ordinary way. If bars hardened in this manner are broken it will be found the hardness is deeper and more equal than with any other process, and that the steel is less brittle.

The trenchant cutting of implements manufactured with this steel presents a remarkable fineness and hardness.—Engineer and Iron Trades Advertiser.

Trade Report.

WIRE NAILS.

Wire nails are in active demand and jobbers are placing contracts with great freedom. Carload lots are $2.45 and smaller lots are $2.50.

CUT NAILS.

Small lots of stock are quoted at $2.35.

OILERS.

Zinc, brass and copper oilers have advanced 10 per cent.

GLASS

Glass in less than carload lots is 80 and 20 per cent off, and carload lots are 85 and 5 per cent off.

WHITE LEAD IN OIL.

White lead in oil in lots of 50 lbs. or over is 6½c per lb., and in lots of less than 500 lbs. it is 7c per lb.

LINSEED OIL.

Linseed oil has gone down again. Latest quotations on city raw are 50c per gallon in lots of 5 barrels, and 51c per gallon in lots of less than 5 barrels.

SPIRITS TURPENTINE.

Southerns are 36½c to 37c, and machine made barrels are 37c to 37½c per gallon.

COPPER.

Demand was fair and prices were steady at 16⅝c to 16¾c for lake and 16⅜c to 16½c for electrolytic. The English market was still advancing, the market closing firm. Best selected copper was quoted in London at £74 per ton, as against £73 a week ago and £73 5s two weeks ago.

TIN.

Demand was fair and as the market abroad was firmer prices were also firmer at 25¼c to 25⅜c.

LEAD.

Lead was still dull at 4⅜c per lb. for desilverized in 50-ton lots. Exports amounted to 100 tons, while receipts were about 120 tons bullion. In St. Louis the market was firm at 4.27½c bid for soft Missouri and 4.35c to 4.40c quoted for chemical. The English market was still advancing, soft Spanish at £12 1s 3d being 1s 3d higher than on the preceding day, while soft English was quoted at £12 7s 6d.

IRON AND STEEL.

Pig iron continues quiet but steady. Finished material is still in urgent demand. The call for structural shapes is enormous. In old materials the disposition is to wait developments, buyers and sellers alike being content to do as little business as possible for the moment. There is no apparent change in old steel rails. The stock offering for sale in this part of the country is very light. During the early part of the week a sale was reported of about 300 tons heavy section tees, as taken from the track, and strictly scrap rails, at a price said to be equal to $15.50 gross ton delivered f. o. b. cars Jersey City. A lot of about 500 tons, same section, and said to contain more or less relaying rails is being offered for sale by a railroad in this vicinity. No decision has been made upon the bids received. Demand for old steel rails is good for all sections, with heavy section tees receiving the most attention. Bids are being requested for several small lots, some of which are less than 100 tons. In No. 1 wrought scrap there is no change in the situation. Holder's views as to price, in the majority of cases, are above the ideas of buyers, and in consequence the business doing is small. This refers more particularly to lots in dealers' hands.

SHEETS.

Large buyers with heavy unfilled contracts report that they are receiving less than half of the quantity of sheets due them. This shows how much business is being restricted by the strike in the sheet mills. The quantity received from the mills is so small that the consuming trade is constantly kept in a state of aggravation. Jobbers are unable to accumulate their usual assortment of sizes and prices depend on the disposition of the seller or the character of the buyer. Black sheets may be quoted at 4c to 4.25c for No. 27, but it is impossible to secure some sizes at any figure. Galvanized sheets are quotable at 60 and 5 to 65, but it is also extremely difficult to get some sizes.

MERCHANT PIPE.

Although the demand is quite heavy, buyers appear to be less urgent than some time since. They are probably influenced by the expectation that the pipe mills will shortly be in operation and that the supply will then be increased. Stocks are so small that the demand is still in excess of the supply and consequently prices are arbitrary. One of the largest jobbers is finding no difficulty in selling his stock of black pipe at 40 off.

MERCHANT STEEL.

The leading manufacturers of merchant steel report their mills crowded with orders. They are notifying the trade that it will be impossible for them to promise deliveries on standard material under three or four months. The market is consequently exceedingly firm with a possibility of higher prices rather than any concessions. Mill shipments, Chicago, are quoted as follows: Smooth finished machinery steel, 2c to 2.10c; smooth finished tire, 1.85c to 2c; open hearth spring steel, 2.30c to 2.40c; toe calk, 2.40c to 2.60c; sleigh shoe, 1.85c to 1.90c; cutter shoe, 2.40c to 2.60c; cold rolled shafting, 55 to 60 off. Ordinary grades of crucible tool steed are quoted at 6¾c for carloads and 7c to 7½c from store; specials, 12c upward.

Quotations.

METALS.

FIRST QUALITY BRIGHT PLATES.

		Per Box.
IC	10x14	$8 75
IX	10x14	10 50
IC	12x12	8 75
IX	12x12	10 50
IC	14x20	8 75
IX	14x20	10 75
IXX	14x20	11 75
IXXX	14x20	13 25
IXXXX	14x20	14 75
IC	20x28	17 00
IX	20x28	20 00
IXX	20x28	23 00

COKE PLATES.

Cokes, 180 lbs	IC	20x28	11 20
Cokes, 200 lbs	IC	20x28	11 50
Cokes, 216 lbs	IC	20x28	11 80
Cokes, 216 lbs	IX	20x28	13 75

PIG IRON.

Lake Sup. Charcoal	$17 50@$18 00
Local Coke Fdy No. 1	15 50@ 16 00
Local Coke Fdy No. 2	15 00@ 15 50
Local Coke Fdy No. 3	14 50@ 15 00
Local Scotch Fdy No. 1	15 50@ 16 00
Local Scotch Fdy No. 2	15 00@ 15 50
Local Scotch Fdy No. 3	14 50@ 15 00
Southern Coke No. 1	14 65@ 15 15
Southern Coke No. 2	14 15@ 14 65
Southern Coke No. 3	14 15@ 14 65
Southern Coke No. 4	13 90@ 14 15
Southern No. 1 Soft	15 40@ 15 55
Southern No. 2 Soft	14 90@ 15 15
Southern Silveries	15 45@ 15 50
Jackson Co. Silveries	17 00@ 17 50
Ohio Strong Softeners	16 50@ 17 0
Alabama Car Wheel	21 00@ 20 00
Malleable Bessemer	16 00@ 17 00
Coke Bessemer	17 50@ 18 50

BLACK SHEET STEEL.

¼ in 3-16 in. Nos. 8 and 10. per lb.	$3 80
No. 12 per lb.	3 85
No. 14 per lb.	3 90
No. 16 and 18 per lb.	3 95
No. 20, 22, 24, 25 and 26 per lb.	3 90
No. 27 per lb.	4 00
No. 28 per lb.	4 15

SMOOTH STEEL.

	per lb
Wood's Smooth Steel, 15-17	$4 00
" " " 18	4 10
" " " 20	4 20
" " " 22-24	4 30
" " " 25-26	4 40
" " " 27	4 50
" " " 28	4 60

PATENT PLANISHED SHEET STEEL.

Patent Planished Sheet Steel. "A" $10 20, "B" $9 20

GALVANIZED IRON.

Galvanized Iron 65%

SOLDER.

Extra 20½c

Commercial 19½c

SHEET ZINC.

600 lb. Casks, base ..... 7¼c per lb.

COPPER.

Copper ..... base, 21c

TIN PIGS AND BARS.

Banca, pigs, per lb.	28¼@28½c
Straits, pigs, per lb.	28 @28¼c
Straits in bars, per lb.	28¼@29 c

LEAD.

merican Pig	4.60@4 62½c
A	½ @ ¾

HARDWARE.

QUOTATIONS.

(The quotations given below represent the current hardware prices. They are not given as manufacturer's prices, and manufacturers should not be held responsible for them. Manufacturers sometimes name higher figures than those quoted for goods; they are not always selling at the price quoted, but goods are being sold at the figures printed below by manufacturers and jobbers.)

ADZES—CARPENTERS'.

Hunt's	25%
White's	12½%
Coopers'—Barton's	12½%
White's	12½%
Ship—Barton's	12½%
White's	15%
Hunt's	25%

AGATE NICKEL STEEL WARE.

Agate Nickel Steel Ware ..... 33⅓&10%

AMMUNITION

CAPS, PERCUSSION—per 1000—

F L Waterproof, 1-10s	50c
G D	40c
Eley's	52c

CARTRIDGES.

Peters Rim Fire Ctgs	50&3%
Peters Cent Fire, Pistol & Rifle	25&3%
Peters Cent Fire, Military and Sporting Ctgs	15&5%
Peters Blank Ctgs, except 22 and 32, an additional 10% from above discount.	
Peters Blank Ctgs. 22 cal	10&10%
Peters Blank Ctgs. 32 cal	10&10%
Peters B B Caps, Round ball	$1 18
Peters B B Caps. Conical ball	$1 90
U M. C. Rim Fire Ctgs	50&3%
U.M.C. Cent. Fire, Pistol & Rifle	25&3%
Winchester Cent. Fire. Military and Sporting Ctgs	15&8%
U M C. Blank Ctgs. 22 & 32 cal	10%
U. M. C. Blank Ctgs. 38 cal	50-10-10%
U. M. C. B B Caps, Round Ball	$1 75 25&10%
U .MC. B B Caps, Con. Ball	$2 00 net
U M. C. Rim Fire Shot Ctgs	50&15&3%
U. M. C. Cent. " " "	25&10&3%

PRIMERS.

Berdan Primers	$1 00
Peters Primers	1 10
U. M. C. Primers	1 08
Winchester Primers	1 08

SHELLS.

Peters Empty Paper Shells, 10 and 12 gauge. League	25&5%
Peters Empty Paper Shells, 16 gauge. League	20&5%
Peters New Victor Nitro shells	15%
Ideal	33⅓&10%
Peters Loaded Shells. League and Semi Smokeless	40&5%
Peters New Victor Loaded Shells. with King's Smokeless	40&10&10%
Ideals Loaded with Kings Smokeless	40&10&10&5%
U. M. C, New Club, 16 guage	20&10%
U. M. C. New Club 10 & 12 gauge	33⅓&5%
U. M. C. New Club	33⅓&5%
U. M. C. Nitro	18%
U. M C. High Base	18%
U. M. C. Trap	33⅓&10&7%
Winchester Blue Rivals / Winchester Yellow Rivals	20%
Winchester Repeater	18%
Winchester Leader	33⅓&10&7%
U. M. C. Loaded Shells. Black Powder / Winchester Loaded Shells, Black Powder	40&5%
U. M. C / Winchester	Smokeless 40&10&10&5%

GUN WADS—per 1000.

Peters Gun Wads	20&5%
U. M. C. Gun Wads	20&5%

POWDER.

King's Quickshot Powder; Kegs $4 00; ½ kegs $2 25; ¼ kegs $1 25.

King's Semi-Smokeless	20&5%
King's Smokeless	25, 20 & 10
Austin Quickshot Powder, Kegs $4 00; ½ kegs $2 25; ¼ kegs $1 25.	
Dupont Smokeless, Sporting	25, 20 & 10c.

SHOT.

Drop shot, sizes smaller than B, 25-lb bags, per bag	$1 35
Drop shot, B and larger sizes, 25-lb bags, per bag	1 60
Buck Shot, 25-lb bags, per bag	1 60
Chilled Shot, 25-lb bags, per bag	1 60

ANVILS.

Hay-Budden, 70 to 84 lbs	10c per lb
Hay-Budden, 85 to 150 lbs	9c per lb

AUGERS AND BITS.

Snell's Boring Mach. Augers	60&10&5%
Snell's Car Bits, 12-inch twist	40%
Jennings' Pattern Auger Bits	50&10%
Russell Jennings' Augers and Bits	25&10%
Ship Augers, L'Hommedieu Bits	15%
Irwin	50%
Climax Bits	60&10%

AWLS.

Brad, handled per doz.	$ 35
Brad, shouldered, assorted 1 to 4 per gr.	2 00
Brad, shouldered, assorted 1 to 6 per gr.	2 50
Peg, Pat. per gr.	60
Peg, shouldered per gr.	1 00
No. 1, Scratch, handled per gr.	4 80
No. 5, Scratch, socket per doz.	6 00

AXES.

Lippincott	per doz	6 50
Mann	"	6 50
Second quality	"	6 00
Beveled axes, add	"	50
Broad—		
Peerless can patt	"	28 50
Hunt's	"	30
White's	"	12½
Hand—		
Hunt's	"	40
White's	"	12½
Ship—		
White's	"	12½

AXLES.

Common iron, long arm, sq. bed	5¼
Concord iron. long arm, sq. bed	6¼
Concord express, long arm, steel, square bed	6¾
Coach shape on above, ex. per. lb.	½
Short arms on above, extra per lb.	2
Welded axles on above, ex. per. lb	1½
Half Patent, steel, Nos. 7 to 14	70
Half Patent steel, Nos. 19 to 22	70
Extra, coach shape, 1¼ & smaller per set	15
Extra, coach shape, 1¼ 1½, per. set	30
Extra, coach shape, l'g'r, per. set	$1 00
National Wrought Steel Tubular, Self Oiliug—	
Standard Farm (1 to 5) and Special Farm (A1 to A5) less than ten sets	20%
Over ten sets	25

BEAMS—SCALE.

Scale Beams, List Jan. 12, 82	35%
Frary's	40%
P. S. & W.	30%

BELLOWS.

Blacksmiths	70%
Hand, 6½ in. per doz.	$4 50
Molders', 10 in. per doz.	9 00

BELLS.

COW.

Ordinary Goods	70&10%
High Grade	60&10%
Jersey	75&10%
Texas Star	50&10%

DOOR.

Abbe's Gong	45%
Barton Gong	55%
Home, R. & E. Mfg. Co.'s	55&10%
Lever and Pull, Sargent's	20&10&10%

HAND.

Hand Bells, Polished	60@60&10%
White Metal	55@55&10%
Nickel Plated	50@50&10%
Swiss	60%
Silver Chime	33⅓@33⅓&10%

MISCELLANEOUS.

Farm Bells	lb. 2¼ to 2½c
Steel Alloy, Church and School	50&10&5@60%
Wilmot & Hobbs Mfg. Co., Gongs	70%

BIT STOCK DRILLS.

Standard List ..... 60@60&5%

BLOCKS

Common Wooden	70%
Eddy Steel Tackle Blocks	66⅔&5%

BOLTS.

CARRIAGE, MACHINE, ETC.

Common, list Jan. 30, 95	65%
Norway Iron, $3.00, list Oct. 7, '84	75&10%
Bolt Ends, list Jan. 30, '95	50&10%
Machine, list Sept. 20, '99	65&10%

DOOR AND SHUTTER.

Ives' Patent Door	60%
Wrought Barrel, Standard list.	7 &10%
Wrought Flush	40&10%
Wrought Square, Standard list	65%

STOVE AND PLOW.

Plow	40&10%
Stove, list December 28, 1899	70to70&10%

TIRE

Common, list Dec. 28, '99	70%
Eagle Philadelphia	72½%
Norway	75%

BORING MACHINES.

Jenning upright without Augers ..$2 00

BOXWOOD RULES.

No. 4	$11 00	per doz
" 12	16 00	"
" 18	6 00	"
" 26	11 00	"
" 27	13 00	"
" 29	4 50	"
" 66	10 00	"
" 66½	10 00	"
" 67	6 00	"
Boxwood		80&10%
Ivory		40&10%
Lufkin's Steel		50&10%

BRACES.

Barber's	50&10%
Common Ball, American	$1 50
Fray's Genuine Spofford's	60%
Fray's No. 307 to 322	40&5%
Fray's No. 508 to 522	50%

BRACKETS.

Cast Iron Plain	50&10%
Wrought Steel	70&10 @ 75%
Bradley's	75 @ 75&10%

BROILERS.

Wire Goods Co 75%

BUTTS.

Bright Butts, Nos. 800, 802, 804, 806, 808, 810, 814, 816, 818, 820, 854	70%
Bright Butts, Nos. 826, 828, 829, 830, 832, 834, 836, 838, 840, 842, 843, 844, 845, 846, 848	70%
Bright Butts, Nos. 822, 822½, 823, 823½	70%
Japanned Butts, Nos. 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 726, 727, 728, 729, 730, 731	70%

CAGES—BIRD.

Enameled	40%
Brass 1200 series	33⅓%

CASTERS.

Bed	60&10&5%
Plate Casters	60&10&5%
Martin's Patent (Phoenix)	50&5%

CHAIN.

American Coil, Cask lots:

3-16	¼	5-16	⅜	7-16	½	9-16
7.45	5.55	4.55	3.70	3.55	3.45	3.40

⅝ ¾ ⅞ to 1 1⅛ to 1¼ inch
3.40 3.35 3.35c. per lb. 3.60 per 100 lbs

Less than Cask lots add 25c.

German Coil, list July 24, '97	60&10&10%
German Halter Chain, list July 24, '97	60&10&10%

Traces, Western Standard: 100 pair

6½—6-3, Straight, with ring	$26.00
6½—6-2, Straight, with ring	27 00
6½—8-2 Straight, with ring	31.00
6½—10-2, Straight, with ring	34.50

Add 2c per pair for Hooks.
Twist Traces 2c. per pair higher than Straight Link.

Trace, Wagonand Fancy Chains Eastern list	60@60&5
Jack Chain, lis July 10 '98 Iron	60@60&.
Brass	60@60&10

Safety Chain.....70@70&10%
Gal, Pump Chain.....lb. 4½@4¾c
Covert Sad. Works:
Breast, Hitching and Rein Chains.....50%
Covert Mfg, Co.:
Breast.....35&2%
Halter.....35&2%
Heel.....35&2%
Rein.....35&2%
Stallion.....35&2%
Oneida Community:
Eureka Coil and Halter...60@60&5%
Niagara Coil and Halters.60@60&5%
Niagara Cow Ties..45&5@45&10&5%
Am, Coil and Halters..50&10&5@60%
Am. Cow Ties.....35&5@40&5%
Wire Goods Co.:
Dog Chain.....60&10%
Universal Dbl-Jointed Chain 50%

CHALK.

Blue.....per gross 60c
Red..... " 50c
White..... " 45c

CHALK LINES.

Chalk lines.....per doz. $2 50

CHISELS.

Mix..... } 70&5 to 70&10%
Witherby..... }

CHISELS.

Box.....20%
Tinners.....40%
Cold, per lb.. regular qual.....20%
Cold, per lb., special qual.....32%
Corner.....66⅔%
Firmer, American..... 20, 10&10%
Barton's.....20%
Butcher's.....40&10%
Mortice, Butcher's.....40&10%
Socket, Firmer 70%
Framing.....70%
Turning, Barton's.....20%
Butcher's.....50%
Beveled.....20%

CLAMPS.

No. 25 Adjustable.....50&10 to 60%
Carriage Makers.....50&10&5%

CLEANERS.

Pot.....per doz $1 10

CLEAVERS.

Beatty's.....dis 40
White's..... " 15

CLIPPERS.

E. H. Hotchkiss Horse Clippers
No. 10.....per doz $18 00
No. 30..... " 15 60
No. 22..... " 13 80
No 20..... " 13 20
No. 8..... " 10 80
H. Hotchkiss Toilet Clippers
No. 1.....per doz 9 60
No. 101..... " 10 80
No. 201..... " 10 80
No. 300..... " 13 20
No. 500..... " 15 00

COFFEE MILLS.

Enter. Mfg. Co., list Jan. 17, '93....25%
Parker's.....50&10%
Arcade.....60&10%

CORKSCREWS.

Howes..... 25 & 22%
Humason & Beckley..... 40 & 10%
Empire.....40%
Walker's.....net
Williamson's Regular.....40%
Williamson's Forged Worm 40%

DOG COLLARS.

Pope & Stevens' List:
Brass (full Assortment).....net price

DOOR CHECKS.

Blount.....30%
Eclipse.....30%
Corbin.....30%

DRILLS AND DRILL STOCK.

m i i B lacksmith's Γ]
..... $1 50@$1 60
Bench Drills, Stearns' .....5 50& 6 00
Blacksmith's Self-feeding, each,
..... $5 00&$7 00
Breast.Millers Falls, each ..$3 00 20%
Godell Automatic Drills,$12 00to$15 00

EGG BEATERS.

Standard Co.:
No. 5 Steel Handle Dover per gross..... .....$ 6 50
No. 10 Cast Handle Dover pr gr 8 00
No. 10 Steel H'ndle Dov'r pr gr 8 00
No. 15 Extra Heavy Steel Handle per gr 15 00
Rival per gr..... 10 00
Taplin Mfg Co.:
No. 50 Small Family size pr gr 6 50
No. 100 Regular Fam size pr gr 8 00
No. 102 Regular Family size tinned pr gr..... 9 50
No. 150 Large Fam size pr gr.. 15 00
No. 152 Large Family size tinned pr gr..... 17 00
Lyon's Standard size per doz.. 1 75
Wonder (S. S. & Co.) per gr.... 7 50

ENAMELED WARE.

Peerless (L. & G. Mfg. Co.).....Net
Royal (N. E. & S. Co.).....Net

FASTENERS, BLIND.

Zimmerman's.. .....50&10%

FAUCETS.

Standard Metal Key.....25%
B. & L. B. Co.
Redlich's Wood Faucets.
Red Cedar ..... } Net Prices.
Oak..... }
Cherry..... }
Cork Lined..... }
Metal Key..... }
Self Measuring:
Enterprise, per doz. $36 00.....40%
Cork Lined.....70&5@70&10&5%
Metallic Key, Leather Lined .....70@70&10%
Red Cedar..... .....50@50&5%
B. & L. B. Co.:
West's Lock, Open and Shut Key..... .....50&10%
John Sommer's Peerless Tin Key..40%
" " Boss Tin Key 50%
" " Victor Metal Key..50&10%
" " Duplex Metal Key....60%
" " Diamond Lock..... 40%
" " I X L Cork Lined ...50%
" " Reliable " " ..50&10%
" " Common " " 70%
" " Chicago " " 60%
" " O K " " 50%
" " Perfection Cedar..... 40%
Star..... . .....60@60&5%
Star, Metal Plug new list... 40@40&5%
Lockport, Metal Plug, reduced list..... .....60&5%
McKenna, Brass:
Burglar Proof, N. P.....35%
Improved, ¾ and ⅞ inch.....35%
Self Measuring:
Enterprise, per doz $36.00.....40%
Lane's, per doz. $36.00.....40&10%
National Measuring, per doz $36.00..... ....40%

FILES—Domestic.

New List, Nov. 1, '99:
Black Diamond.....70&10%
Disston's.....75& 5%

Imported.

Stubs list.....5%

FORKS AND HOES.

Coke and Cottonseed Forks....40&5%
Coal Forks.....40&5%
Barn or Ice Forks.....40&5%
Beet Forks..... .....30&10
Ballast or Stone Forks.....40&5%
Tanners' Forks.....40&5%
Shaving Forks.....40&5%
Potato Scoop Forks.....40%
Oyster Forks.....40&5%
Sluice Forks.....40&5%
Heavy Mill, Manure or Street Forks.....70%
Steel Tar or Asphalt Rakes.....65%
Asphalt Hoes.....65%
Two Tine Hay Forks, Std. Size...65%
3 Tine Hay Forks, Std. Size..60&16⅔%
Four Tine Hay Fork, Std. Size 66⅔%
Socket Four Tine Hay Forks..66⅔&5%
Socket Four Tine Manure Forks...70%
Socket Four Tine Spading Forks .....70&5&5&2½%
Three Tine Hay Header and Baler Forks.....67½&2½%
Four Tine Hay Header and Baler Forks.....66⅔%
Grain or Barley Forks.....70&6%
Four Tine Manure Forks.....70%
Five & Six Tine Manure Forks.....70%
Spading Forks.....70&2½%
Potato Digging Forks.....65%
Stone Picking Forks.....65%
Garden Hoes.....75%
Meadow and R. I. Hoes...75&5&9½%
Sunbeam Meadow Hoes.....75&5&½%
Mortar and Street Hoes.....75&2%
Planter Hoes, Regular Pattern 70&30%
Tobacco Hoes.....75&20%
Cotton Hoes.....70&10&10&5&2%
Rough Fin. Shank Cot. Hoes 75&12½%
Cotton Chopper Hoes....75&10&7½%
Ladies' Cotton Hoes.....75&10&7½%
Malleable Rakes.....70@70&10%
Toy Ladies' and Boys' Hoes.....70&10to70&10&5%
Weeding Hoesand Rakes...70@70&5%
Potato Hooks.....65to65&10%
Hop Hooks.....60&10&2½%
Steel Garden Rakes.....70&2%
Steel Garden Rakes Stamped blank 70%
Turf Edgers.....60&5%
Steel Road Rakes..... 65%
Special Mortar Hoes.....40&10&2½%
Harpers' No. 7 Mortar Hoes.... .65%
Truck Hoes.....50&10&2%
Hoes.....65%
Special Hoes.....75&10&2%
Hoe Down Hooks.....75&10&2%
Warren Hoes.....50&10&7½%
Laid Steel Edge Hoes.....25, 5&2%

GAUGES.

Marking, Mortise, etc.....60%
Stanley R. & L. Co.'s Butt & Rabbet Gauge.... .....Net
S. & H. Cos.....75%

GIMLETS.

Gimlets.....60%

GLASS CUTTERS

Woodward.....33⅓&10%
Red Devil.....33⅓&10%

GLUE POTS.

Tinned.....30%
Enameled.....35%

GLUE.

Martin's Liquid, List....33⅓% off List
Martin's Liquid, List....33⅓% off List
Martin's Liquid, List....33⅓% off List

GREASE, AXLE.

Fraser's.....Ne
Baum's Castorine.....Net

GRINDSTONE FIXTURES.

Stowell's..... Net
Reading Hardware Co.....Net

HAMMERS.

"Artisan's Choice" A. E. Nail.40&10%
Engineer's and B. S. Hand.....60%
Machinist's Hammers.....60%
Bell Face, A. E. Nail.....50
S. & H. Cos. No. 20 ....per gross. 5 25

HANDLES—IRON, WROUGHT OR CAST—DOOR OR THUMB.

No. 0.....per doz $0 90 } Dis. 50
No. 1..... " 1 00 }
No. 2..... " 1 18 }
No. 3..... " 1 35 }
No. 4..... " 1 50 }
Bronze iron drop lat., per doz net $1 10
Japanned store door.....net 1 10
Barn door No. 5..... " 1 35
Chest and lift.....dis 50
Wood—
Saw and plane..... " 45
Hammer, hatchet, axe, etc.... " 45
Brad awl.....per gro. 45
Hickory firmer chisel..... } .25
Apple firmer chisel..... }
Socket firmer chisel..... }
Socket framing chisel,..... }
File.....per gro. $2 80
Auger, assorted..... 5 00
Hoe, rake, shovel, etc..... 50
Cross Cut Saw—
Atkins' No. 1.....per pair 28
" No. 3 ..... " 18
" No. 6..... " 12
Triumph..... " 12
Common loop..... " 10

HANGERS.

Chicago Spring Butt Co.:
Friction.....25%
Oscillating 25%
Big Twin.....25%
Cronk Hanger Co.:
Loose Axle 60%
Roller Bearing.....60&10%
Lane Bros :
Parlor, Ball Bearing $4.00
Parlor, Standard 3.25
Parlor, New Model 2.75
Parlor, New Champion..... 2 40
Barn Door, Standard .....60&10%
Covered .....50&10&10&5%
Special ....60&10%
Lawrence Bros.:
Advance.....60%
Cleveland .....60&10%
Crown.....60%
New York.....60%
Peerless .....60&10%
Sterling 60%
McKinney Mfg. Co.:
No 2, Standard, $18.....60&10%
No. 1, Special, $13.....60&10%
Stowell Mfg. and Foundry Co.:
Acme Parlor Ball Bearing 40%
Atlas.....50&10%
Badger Barn Door.....50%
Baggage Car Door.....50%
Climax Anti-Friction.....50%
Elevator 40%
Express.....50%
Interstate .....50&10%
Lundy Parlor Door.....50%
Matchless.....50&10%
Nansen.....60&10%
Stowell Parlor Door 50%
Railroad 50%
Street Car Door.....50%
Steel, Nos. 300, 404, 500.....40&15%
Wild West..... .....50%
Zenith for Wood Track 50%
Taylor & Boggis Foundry Co.:
Kidder's .....50@50&10%
Wilcox Mfg Co :
Bike Roller Bearing .....60&10%
C. J. Roller Bearing.....60&10%
Cycle Ball Bearing.....50%
Dwarf Ball Bearing.....40%
Ives, Wood Track..... 60&10%
L. T Roller Bearing.....60&10&5%
New Era Roller Bearing .....50&10%
O, K. Roller Bearing.....60&10&5%
Prindle, Wood Track 60%
Richards' Wood Track 60%
Richards' Steel Track .....50&10%
Spencer Roller Bearing.....60&10%
Tandems, Nos. 1 and 2..... 60%
Underwriters' Roller Bearing....40%
Wilcox Auditorium Ball Bearing 20%
Wilcox Barn Trolley No. 123 ....40%
Wilcox Fire Trolley, Roller Bearing 30%
Wilcox Le Roy Noiseless Ball Bearing 40%
Wilcox New Century ....50&10&10%
Wilcox Trolley Ball Bearing.....40%

HATCHETS.

American Axe and Tool Co..... } 40&10%to40&10 &5%
Blood's..... }
Hunt's..... }
Hurd's..... }
Mann's..... }
Underhill's..... }
C. Hammond & Son.. }
Fayette R. Plumb.... }

HAY AND STRAW KNIVES.

Lightning.....$6 50&$7 00

HINGES.

BLIND AND SHUTTER.

Surface Gravity Locking Blind:
(Victor; National; 1868 O.P.; Niagara; Clark's O. P.; Clark's Tip; Buffalo.)

No	1	3	5
Doz pair	$0.75	1.45	2.90

Mortise Shutter:
(L. & P., O. S., Dixie &c.)

No	1	1½	2	2½
Doz. pair	$0.60	55	52	45

Mortise Reversible Shutter, (Buffalo, &c.)

No	1	1½	2
Doz. pair	$0.65	.60	.55

Parker.....70@75%
North's Automatic Blind Fixtures, No 2, for Wood $9.00; No. 3, for Brick $11.50 .....10%
Reading's Gravity.....75&10%
Sargent's, No. 1, 3, 5.....66⅔&10%
Sargent's Nos. 11 & 13.....70&10%
Wrightsville H'dware Co.:
O. S., Lull & Porter.....80&2½%
Acme, Lull & Porter.....75&10%
Queen City Reversible.....75&10%
Stenger's Positive Locking, Nos 1 & 3.....70&10&5%
Shepard's Noiseless, Nos. 60, 65, 55 76&10%
Niagara, Gravity Locking, Nos. 1, 3 & 5 .....75&7½%
1868, Old Pat'n. Nos. 1, 3 & 5 75&7½%
Tip Pat'n. Nos 1, 3 & 5.....75&7½%
Buff. Gravity Lock., 1, 3, 5..75&7½%
Shepard's Double Locking, Nos. 20 & 25.....70&10%
Champion Gravity Locking, No 75 75&7½%
Steamboat Gravity Locking, No 10 5&7½%
Pioneer, Nos 060, 45 & 5½..75&7½%
Empire, Nos 101 & 103 .....70&7½%
W. H. Co's Mortise Gravity Locking No. 2 .....60&10%
Stanley's Steel Gravity Blind Hinges, per doz. sets $1.30.....30&10%

GATE.

Clark's or Shepard's—Doz. sets:

No	1	2
Hinges with Latches	$1.90	2.50

Hinges only..... 1.30 1.90 2.90
Latches only..... 65 65 95
New England:
With Latch.....doz....@$1.55
Without Latch.....doz....@$1.25
Reversible Self-Closing:
With Latch.....doz....@$1.80
Without Latch.....doz ...@$1.45
Western:
With Latch.....doz. $1.40@1.75
Without Latch.....doz. $0.95@1.30
Wrightsville H'dware Co.:
Shepard's or Clark's Nos. 1 & 2... 65&2½%
Shepard's or Clark's, No. 3....55&5%

SPRING

Holdback, Cast Iron, gros. $8.00@8.25
Non-Holdback, Cast Iron.... ... gro. $6.75@7.25
Extra 10% often given on most of these hinges.
J. Bardsley:
Bardsley's Patent Checking 15%
Bommer Bros.:
Bommer Spring Hinges 40%
Bommer Ball Bear. Floor Hinges.40%
Chicago Spring Butt Co.:
Chicago 20%
Floor Hinge.....40%
Garden City Engine House.....20%
Keene's Saloon Door 20%
Triple End.....40c
Hoffman Hinge & Foundry Co.;
No. 70 & 80 Holdback Detachable $8.50
Lawson Mfg. Co.:
Matchless 30%
Matchles Pivot.....35%
Payson Mfg. Co.:
Oblique.....50&10%
Stover Mfg. Co.:
Ideal, No. 16, Detachable, per gr. $12.50
Ideal, No. 4.....per gr. $9.00
New Idea No 1.....per gr. $9 00
New Idea, Double Acting.....45%

WROUGHT IRON

Strapand T Hinges, list Mar. 15, 1901:
Light Strap Hinges.....75%
Heavy Strap Hinges.....80%
Light T Hinges.....70%
Heavy T Hinges.....66⅔%
Extra Heavy Hinges.....75&10%
Hinge Hasps..... .....60%
Cor, Heavy Strap..... 80%
Cor. Ex. Heavy T.....75&10%
Screw Hook and Strap:
6 to 12 in.....lb. 3½c
14 to 20 in.....lb 3¾c
22 to 36 in.....lb. 3 c
Screw Hook and Eye:
¾ to 1 inch.....lb. 5c
⅝-inch.....lb. 6c
½-inch..... .....lb. 7c

MISCELLANEOUS—

Hoffman's Steel Spring Butt Hinges 40&10%
Hoffman's Offset Refrigerator Hinges 40&10%

HOLLOWWARE.

Stove Hollowware Ground.....50%
Maslin Kettles.....70&10%

HOOKS.

Picture, No. 299 ....&28c

BUSH HOOK.

No. 1, Underhill $9 00
Bird cage 40%
Clothes line .....60&10&10%
Grapling.....50%
Ceiling.....60&5%
Coat and Hat ..... 60&5%
Harness .....60&10&10%

WROUGHT IRON.

Cotton, V. & B.....25%
Tassel and picture.....50%
Wire, Coat and Hat, Gem.....net
Indestructible..... 45%
Brass .....net $2 0 %
Hooks and eyes, bright wire....80&10%
Brass.....60&10&5
Fish hooks, American.....50%

HOSE—RUBBER.

Competition.....dis 70&10%
Standard 70%
Extra 60%
N. Y. Rubber Co.'s st'd.....50&10%
Banner.....60%
Extra..... 50%

IRONS—SAD AND POLISHING.

Mrs. Potts' No. 50.....70c
Mrs. Potts' No. 55.....70c
Mrs. Potts' No. 60..... .....90c
Mrs. Potts' No. 65..... .....95c

KNIVES.

Standard List.....70&5%
Adjustable Handle.....25@33⅓%
Watrous.....30&10@40%
Cantelo's Folding.....25%
Improved Crown.....20%

KNOBS.

Base, 2½in. Birch Rubber tip per gro.....$1 40
Door, Mineral..... per doz. 65c
Door, Por. Jap'd..... per doz. 75c

LADLES.

Reading.....Net
Sargent's.....Net

LANTERNS—TUBULAR.

No. 0 Berger's "Bail Lift," per doz. $9 50.....40&10%
No. 0, Berger's "Bail Lift," Galvanized, per doz. $10 50...40&10%
No. 2 Berger's "Bail Lift," per doz. $13 00.....40&10%
No. 2 Berger's "Cold Blast," per doz. $16 00.....40&10%
No. 0 Berger's Dash Board, Japaned, Plain Globe, per doz. $13 00.....40&10%
No. 0, Berger's Dash Board, Japanned, Bull's Eye, per doz. $13 50.....40&10%
No 2, Berger's Dash Board, Japanned, Plain Globe, per doz. $17 00 .....40&10%
No. 2, Berger's Dash Board, Japanned, Bull's Eye, per doz. $17 50.....40&10%

BULL'S EYE POLICE.

2¾-in. flash light, per doz. $3 50@$3 75
3-in. flash light, per doz. ..4 00@ 4 25
4¾-in. regular, per doz.....3 50
3-in. regular, per doz.....3 57

LEMON SQUEEZERS.

Wood, Common, per gr., No. 0 $5 00; No. 1 $6 50; No. 2 $10 00.

Wood, Porcelain lined, No. 1.....per doz. $3 00@$3 50
Tinned Iron.....per doz. 1 25
Iron, Porcelain Lined, per doz.....3 25@ 3 50
Jenning's Star...per doz. 1 85@ 1 90
King.....per doz.

LOCKS.

Plate 33⅓%
Slaymaker-Barry Co..... 30&35%
Sargent & Co..... 40, 40&10%
Yale flat key.....net
L. & C, round key.....30&10%
Reading Harding Co.....40%
L & C. flat key latches .....33&10%
Stearns' sliding door....net $15 00

CABINET.

Eagle.....33⅓%
Yale.....33⅓%
Eagle and Corbin trunk.....25%

PADLOCKS.

Wilcock's..... 70%
M. W. & Co..... 70%
Russell & Irwin 70%
Slaymaker Barry Co..... 40%
Bohannon's brass..... 30%
Yale.....net
Eagle 33⅓%
Eureka, Eagle Lock Co 40%
Corbin.....33⅓&10%

MALLETS.

Fiber Head Sterns.....30&10%
Hickory..... .....40%
Lignumvitæ .....40&40&10%
Tinners', Hickory and Applewood, per doz. .....75c@$1 50

MATTOCKS.

Regular list.....70%

MOWERS, LAWN.

Cheap.....all sizes, $2 00@$2 10
Good.....all sizes, $2 50@$2 75

	10	12	14	16-in
High Grade....	4.25	4.50	4.75	5.00

Pennsylvania and Continental .....Net price
Genuine Philadelphia Mowers:
Styles M. S., C., K., T.....70&10%
Style A, (all steel).....60&10%
Style E, Low Wheel.....60&10%
Style E., High Wheel.....70&10&5%
Drexel, low list.....60%
Gold Coins, low list, ...60%
Dewey's.....Net prices
All Day .....Net prices

NAIL PULLERS.

Giant, No. 1..... per doz., $18 00. 40%
" No. 1½.... " 16 00. 40%
" No. 2..... 15 00. 40%
Ajax.....Net prices.
Diamond B.....per doz., $ 9 00
Pipe.....per doz., 12 00
Eureka.....per doz., 10 00

NAIL SETS.

Octagon..... per gross, $8 00@$9 00
Round..... per gross, 8 00@ 9 00
Cannon's Diamond Point, per gross .....$9 00 Net

NUT CRACKERS.

Sargent's No. 12.....$1 50

OILERS.

Tin or Steel.....50%
Zinc..... 50&10&5 to 60%
Malleable Hammers 35%
Malleable Hammers, old pat., same list .....Net

PADLOCKS.

Sargent Dog Collar 70%
Sargent Wrought Steel and Brass..80%

PINCHERS.

Carpenters', wrt. iron, pol. steel jaws..... 25
Blacksmiths',..... 40
P. S. & W..... 25

PIPE.

WROUGHT.

List February, 1898.
1¼ and under, plain.....50&2½
1½ and under, gal.....50&2½
1½ and over, plain..... 50&2½
1½ and over, gal..... 50&2½
Boiler tubes..... 50&2½

PLANES.

Stanley Planes, No. 100.....$.30 each
" " No. 130..... .25 each

PLIERS AND NIPPERS.

Swedish Side Cutting Pliers 40%
" End " " 40%
" Diagonal " " 40%
Halls Compound Nippers.....40%
U. D. F. & T. Co., all kinds.....Net

PLUMBS AND LEVELS.

Common.....75 to 75&5%
Disston's.....60%

POACHERS.

Buffalo Steam Egg No. 1, per doz. $7 20. 50%

POLISH.

POLISH—METAL.

U. S. Metal Polish Paste, 3 oz. boxes, per dozen, 50c; per gr. $4.50; ½lb boxes, per doz. $1.25; 1 lb boxes, per doz.....$ 2 25
U. S. Liquid, 3 oz. cans, per doz. $1.25; per gr..... 12 00
Barkeepers' Friend Metal Polish, per doz, $1.75, per gr..... 18 00
Universal Paste, 3 oz. boxes.....60%
Burnishine Liquid 5 lb..... 16 00

POLISH—STOVE.

Dixon's .....per gross, $5 75
Dixon's Plumbago.....per lb 6½c

POPPERS, CORN.

Round or Square, 1 qt....per doz., 65%
Square, 1½ qt.....per doz., $1 00
Square, 2 qt.....per doz., 1 00

POST HOLE AUGERS AND DIGGERS.

Iwan's Patent Post Hole Auger....40%
Eureka Perfection Post Hole Digger, per doz.....$10 00
Atlas, per doz..... .... 8 25

POWDER.

IN CANISTERS.

Duck, 1 lb each.....45c
Fine Sporting, 1 lb each 75c
Rifle, 1 lb each..... ....$1 00

IN KEGS.

Duck, 6½ lb kegs.....$2 50
Rifle, 6¼ lb kegs..... ..... 1 25
Rifle, 12½ lb kegs..... 2 25
Rifle, 25 lb kegs..... ..... 4 00

PRESSES—FRUIT AND JELLY

Enterprise Manufacturing Co.....25%

PULLEYS.

Hay Fork, Svl. Sd Eye, doz $1 75@$2 75
Hot House, Awning, etc.....50%
Japanned Clothes Line.....50%
Japanned Screw.....50&10%
Japanned Side..... .....50&10%
Sash (Auger Mortise):
Common Sense, 1¾ in ..per doz. 19c
Common Sense, 2 in ... per doz. 20c
Empire.... ....17c.; 2 in., 22c

SASH PULLEYS.

Fox No. 3 or No. 7, 2½ wheel, ...25c per doz
Fox No. 9, 1¾ wheel.....20c per doz
Extra for plated Finish... 25c per doz
Extra for Anti-Friction Bronze Bushing.....10c per doz

RAZORS.

Fox Razors No. 42....per doz. $20
" " " 44.... " " 24 00
" " " 82..Platina " 24 00
Discount 40%
Rantankarus..... " 16 00

REGISTERS.

List Sept. 1, 1901.

Black Japanned Registers, Ventilators, Faces and Borders, ...70%
White Japanned Registers, Ventilators and Faces.... ....70%
Bronzed Finishes in Imitation of Gold, Silver, Copper or Bronze 70%
Nickelplated..... ....70%
Electro-Plated in Brass, Bronze, Copper or Oxidized Silver.....70%
White Porcelain.....60%
Solid Brass and Bronze Metal.....50%

RIVETS AND BURRS.

Coppered Iron Rivets.....60&5%
Tinners Rivets.....60&5%

ROOFING SUPPLIES.

EAVE TROUGH.

"Perfection" Galvanized Eave Trough.....75&10%
"Eclipse" Galvanized Eave Trough.....75&10%
Double Bead Galvanized Slip Joint Eave Trough.....75&10%
Double Bead Galvanized Lap Joint Eave Trough.....75&10%

GUTTERS.

Roof Gutters, Galvanized.....75&10%

PIPE.

Plain Round Pipe, Galvanized, Nested.....60&20&2½%
Plain Round Pipe, Galvanized, Unnested.....60&20%

VALLEYS.

Valleys, in Rolls, IC and IX Terne.70%
Valleys, in Sheets, IC and IX Terne.....70%

HOOKS.

Flashing Hooks.....10%
Wrought Conductor Hooks.....60%

CUT-OFFS.

Kuehn's Galv.....60%
Acme Galv..... 10&10%
Acme Tin.....60&10%
Centennial Tin.....20%

EAVE TROUGH HANGERS.

Eave Trough Hangers, Single and Double Bead, Imperial.....10%
Eave Trough Hangers, Single and Double Bead, Wire.....

ELBOWS.

One Piece Conductor Elbows, Galvanized, Corrugated..... 60%
Adjustable Elbows, Tin. 50%

PREPARED ROOFINGS.

Imperial 2-ply Tarred Roofing complete.....$1 75 per sq.
Imperial 3-ply Tarred Roofing, complete.....$2 00 per sq.

ROPE.

	Per lb.
Manilla, 7-16 inch diameter and larger.....	9½@10c " "
Manila, ⅜ in.....	9¼@9¾c " "
Manila, ¼ and 5-16 in.....	10½@10¾c "
Sisal 7-16 in. and larger	7@7¼c "
Sisal, ⅜ inch	8@8¼c "
Sisal, ¼ and 5-16 in.	8@8¼c "
Sisal, Medium Lath Yarn	9@9¼c "

SASH CORD.

Braided, Drab.....lb 25c
Braided, White common..lb 17½@18c
Cable Laid Italian ....lb, A 18c, B 16c
Common India.....lb 9c@9½c
Cotton Sash Cord, twisted....12@16c
Patent Russia.....lb 12½@13c
Cable Laid Russia.....lb 13½@14c
India Hemp, braided.....lb 14@15c
India Hemp, twisted.....lb 10@12c
Patent India, twisted.....lb 10@12c
Pearl Braided, cotton .....lb 17@18c
Massachusetts, white.....lb 22½c
Massachusetts, drab.....lb 20½c
Eddystone Braided, cotton ....lb 19c
Harmony Cable Laid Italian....lb 18c
Ossawan Mills:
Crown, Solid Braided, white ..lb 18c
Braided, Giant, white.....lb 17c
Peerless:
Cable Laid Italian.....16c
Cable Laid Russian.....14c
Cable Laid India..... 12c
Braided India.....18c
Phœnix, white.....19c
Samson:
Braided, Drab Cotton .....lb 32½c
Braided Italian Hemp.....lb 32½c
Braided. Linen.....lb 49c
Braided, White Cotton, Spot.lb.28½c
Silver Lake:
A quality, Drab, 40c.....15%
A quality, White, 35c.....15%
B quality, Drab, 35c.....15%
B quality, White, 30c.....15%
Italian Hemp, 40c.....15%
Linen, 57½c.....15%

SASH LOCKS.

Ives, Patent.....60@60&5%
Payson's Perfect.....Net
Payson's Signal (new list).....Net

SAWS.

Atkins' Circular.....Net
Atkins' Band.....Net
Atkins' Cross Cuts.....Net
Atkins' Mulay, Mill and Drag.....40%
Atkins' One-Man Saw.....Net
Atkins' Circular Solid and Inserted Tooth.....50%
Atkins' Bands over 2 in. wide.....60%
Atkins' Bands under 2 in. wide.57&10%
Atkins' Mill, Mulay and Drag.... 50%
Atkins' Cross Cuts..... 40%
Atkins' One Man.....40&10%
Atkins' Narrow Cross Cuts.....40%
Atkins' Wood Saws and Blades.40&10%
Atkins' Hand Saws.....40%
Atkins' Compass Saws.....50%
Atkins' Butcher Saws.....40&10%
Disston Circular Solid and Inserted Tooth.....50%
Disston Cross Cuts.....Net
Disston Narrow Cross Cuts.....Net
Disston, Mulay, Mill and Drag....40%
Disston Framed Woodsaws.....35%
Disston Woodsaw Blades.....40%
Disston Woodsaw Rods.....25%
Disston Handsaws, Nos. 12, 99, 9, 16, D100, D8, 120, 76, 77, 8.....25%
Disston Hand Saws, Nos. 7, 3.....30%
Disston Compass, Keyhole, etc...25%
Disston Butcher Saws and Blades.35%

SAW FILERS

Stearns'.....25%
Silent saw.....35%
Sargent's.....60&30%
Reading.....37½%

SCALES.

Family, Turnbull's .....30@30&10%
Hatch, Counter:
Platform, 4 lb. by ½ oz..doz...$5.75
2 Platforms, 8 lb. by ½ oz. doz $16 00
Union Platform, Plain.....$1.75@$2.00
Union Platform, Striped,.. $1.85@$2 15
Chatillon's Eureka.....25%
Chattilon's Favorite.....40%
Chatillon's Grocers' Trip Scales ..50%
Pelouze Scales, Household Counter, Confect. Postal, Ice, &c.....50%
"The Standard" Portables.....45%
The Standard" R. R. and Wagon 50%

SCREWS.

BENCH AND HAND.

Bench, Iron.....per doz. 60%
Bench, Wood, Beech..per doz. $3 50
Hand, Wood.....30%

COACH, LAG AND HAND RAIL.

Coach and Lag, Gimlet Point, list Sept. 20, 1899.....75@75&10%
Hand Rail, list Jan. 1, 1871..... ..75%

JACK SCREWS.

ack Screws.....70%

WOOD.

MANUFACTURERS' CIRCULAR PRICES

New List.
Flat Head Iron.....87½%
Round and Oval Head Iron. 85%
Flat Head Brass.....85%
Round and Oval Head Brass.....82½%
Flat Head Japanned.....82½%

SCYTHES.

Blood's.....$ 8 50
Clover..... 8 50
Grain Clipper, Blood's..... 10 50
Hollow Clip..... 8 50
Silver Clip 8 50
Honest Dutchman..... 8 50

SHEARS.

	7	8	9 in.
Best.....	$16.00	$18.00	$20.00 gro.
Good.....	13.00	15.00	17.00 gro.
Cheap....	5.00	6.00	7.00 gro.

Straight Trimmers, &c.:
Best Quality Jap.....70@70&10%
" Nickel.....60@60&10%
Fair qual. Jap.....80@80&5%
" Nickel .....75@75&10%
Tailors' Shears.....40@40&10%
Acme Cast Shears.....40@40&5%
Heinisch's Tailors' Shears. 40@40&5%
Wilkinson's Hedge 50%
Wilkinson's Sheep.....1900 list, 50%

SHINGLES, METALLIC.

Eastlake I. C. Tin Shingles, painted, pr sq.....$4 25
Eastlake I. C. Tin Shingles, galvanized, pr square..... ..$6 00
Octagon Fluted I. C. Tin Shingles, painted, per square..$5 50
Octagon Fluted I. C. Tin Shingles, galvanized. pr sq....$7 25

SIFTERS.

Eclipse.....per gr $15 00
Hunter's Genuine.....per gr $16 00

SKATE SHARPENERS.

Skate Sharp., Eureka, per doz $2 00 net
Washer Cutters, Woodard's. per doz.....$2 50 net

SLATE.

GENUINE NO. 1 BANGOR.

24x14, 24x12, 12x 8	$3 50 pr sq.	20x10, 18x10, 18x 9, 16x 8	$4 50 pr sq
22x11, 20x12, 18x12, 16x12, 14x10, 14x 8, 14x 7	$3 75 pr sq.	16x10, 16x 9	$4 25 pr sq
		12x 7, 12x 6	$3 25 pr sq

GENUINE NO. 1 BANGOR RIBBON.

24x14, 24x12	$3 00 pr sq.	20x10, 18x10, 18x 9, 16x10, 16x 8	$3 50 pr sq
22x11, 20x12, 14x 8, 14x 7	$3 25 pr sq.		

SNAPS.

German.....40@40&10%
Covert Mfg. Co.:
Derby.....35&2%
High Grade .....45@2%
Jockey.....40&2%
Trojan .....45&2%
Yankee.....35&2%
Yankee, Roller.....30&2%
Covert's Saddlery Works:
Banner.....60&10%
Crown.....60&10%
Model .....60&10%
Triumph .....60&10%
W. & E. T. Fitch Co.:
Bristol .....40&10%
Empire.....50&5%
German 40%
National .....50&5%
Perfect.....45%
Clipper.....50&5%
Champion.....40%
Security.....40%
Victor.....60&5%
Oneida Community:
Solid Steel.....65@65&10%
Solid Swivel.....65&10@65&10&10%
Sargent's Patent Guarded...66⅔&10%

SOLDERING FURNACES.

No. 3 Gems tin reservoir.....$6 00
No. 6 Gems copper reservoir..... 8 50
Gem Gas Pots..... 3 25
Clayton & Lambert No. 1 Fire-Pot 6 00
Clayton & Lambert's Special Fire-Pot..... 4 50

SPRINGS, DOOR.

Star (Coil) list Oct. '95.....net
Torrey's Rod 39 in. Per doz. .....$1 20@$1 25
Warner's No. 1..... .....net 75

SQUARES.

Steel and Iron..... ..... 70&10%
Nickel plated..... 65, 10&5%
Try squares and bevels..... 65, 10&5%
Disston's..... 45%
Bemis and Call, pocket.....30%
Winterbottom's try & mitre..... 30%
Starrett's..... .....25%

STAPLES.

Barbed Blind .....per lb., 10c
Poultry Netting.....per lb., 5c

STAPLE PULLERS.

Russell Staple Pullers..per doz., $9 00

STOVE PUTTY.

1, 10 & 25 pound Cans.....per lb., 5c
500 pound Kegs.....per lb., 4½c

STROPS.

RAZOR.

Emerson.....60 to 60&5%
Imitation.....20, 10&5%
Torrey's..... .....20%
Tower & Lamont.....per doz $4 00
04 Combination.....per doz 3 75

TACKS.

List Jan. 15, '99.
Carpet Tacks, American.....90&40%
American Cut Tacks.....90&30%
Swedes Iron Tacks.....90&40%
Swedes Upholsterers' Tacks..... .....90&40&10%
Gimp Tacks .....90&40&10%
Lace Tacks .....90&40&10%
Trimmers' Tacks.....90&30%
Looking Glass Tacks .....70&10%
Bill Posters' and Railroad Tack90&40%
Hungarian Nails.....80&15%
Common and Patent Brads....80&10%
Trunk and Clout Nails.....80&10%

TRAPS.

GAME.

Oneida Pattern .....75&5@75&10&5%
Newhouse .....45@50%
Hawley & Norton.....65@5&70%
Victor (Oneida Pattern) .. 75@75&10%
Star (Blake Pattern) ....65&10@70&5%

MOUSE AND RAT.

Mouse, Wood, Choker, doz. holes .....8½@9c
Mouse, Round or Square Wire, doz.....$0.85@1.00
American Pattern French Rat and Mouse Traps—
No. 1, Detroit Marty Pattern, per doz. $4.50; in ½ gro. lots, per doz $4.00
No. 2, Detroit Marty Pattern, per doz, $3.25; in ½ gro. lots, per doz.....$3.00
Detroit Marty Pattern Mouse, per doz. $2.00; in ½ gro. lots, per doz.....$1.75
Diamond Joe Mouse Traps, per doz.....60c
Diamond Joe Rat Traps, per doz.$1.00
Marty French Rat and Mouse Traps (Genuine:)

TWINE.

Flax Twine—	BC	B
No. 9, ¼ and ½ lb. Balls...	20c	24c
No. 12, ¼ and ½ lb. Balls ...	17c	20c
No. 18, ¼ and ½ lb. Balls ...	14c	17c
No. 24, ¼ and ½ lb. Balls....	14c	17c
No. 36, ¼ and ½ lb. Balls...	13c	16c

Chalk Line, Cotton, ½ lb. Balls18@20c
Cotton Wrap., 5 lb. Balls to lb 16 to 20c
2-Ply Hemp, 1½ lb. Balls (Spring Twine) .....12@15c
3-Ply Hemp, 1 lb. Balls.....12@15c
3-Ply Hemp, 1½ lb. Balls .....
2, 3, 4 and 5-Ply Jute, ½ lb. Balls....8c
Mason Line Linen, ½ lb. Balls 45c
No. 264 Mattress, ¼ and ½ lb. Balls 24c
Wool.....5½@6c

VISES.

Solid boxes.....40%
Parker's.....20%
Howard's.....35%
Bonney's.....35%
Trenton.....40%
Stearns'.....50%
Cheney's.....12½%
Massey's.....25%
Parallel.....30&5%
Holland's.....35%
Stevens'.....25%
Miller's Falls.....40%
Prentiss.....20%
No. 1, Rat each $1.12½; per doz. $12.00
No. 3, Rat, per doz. $6.00; case of 50.....$5.25 doz.
No. 3½, Rat, per doz $4.75; case of 72.....$4 25 doz.
No. 4, Mouse, per doz. $3.50; case of 72.....$2.75 doz.
No. 5, Mouse, per doz. $2.75, case of 72.....$2 25 doz.
Schuyler's Rat Killer, No. 1, per gro. $30.00; No. 2, per gro. $30.00; Mouse, No. 3, $18.00.....50%

FLY.

Balloon, Globe or Acme..... doz. $1.15@1.25; gro. ... $10.50@11.00
Harper, Champion or Paragon.... doz. $1.25@1.40; gro....$12.00@12.50

TROWELS.

Disston Brick and Pointing 30%
Disston Plastering.....25%
Disston 'Standard Brand" and Garden Trowels.....40%
Never-Break Steel Garden Trowels.....gro. $7.00
Peace's Plastering.....30%
Rose Brick and Plastering.....25&5%
Woodrough & McFarlin Pl'st'ring.

WASHERS.

LEATHER, AXLE—

Solid.....80&10&10@85%
Patent.....85&10@85&20%
Coil: ¾ 11c, 1 12c, 1¼ 13c, 1¼ inch. 15c per 100

IRON OR STEEL.

Size bolt 5-16 ⅜ ½ ⅝ ¾
Washers $5.20 $4 30 $3.00 $2.80 $2.60
In lots less than one keg add ¼c per lb; 5-lb boxes add ½c to list.

CAST WASHERS.

Over ¼ inch, barrel lots per lb .....1¼@1¼c

WELL WHEELS.

8-in., $2.20.....10-in., $2.60
12-in., $3.25.....14-in., $3.25

WIRE AND WIRE GOODS.

Brt. and Ann., 6 to 9, 70&10@70&10&5%
Brt. and Ann., 10 to 18, 72½@72½&10%
Brt. and Ann., 19 to 26, 75&7½@75&10%
Brt. and Ann., 27 to 36..... .....75&10&5@75&10&7½%
Cop'd and Galv., 6 to 9, ...70@70&10%
Cop'd and Galv., 10 to 18..... ..... 70&10@70&10&5%
Cop'd and Galv., 19 to 26..... .....75&7½@75&10%
Cop'd and Galv., 27 to 36..... .....75&10@75&10&5%
Tinned, 6 to 14..... .....75@75&5%
Tinned, 15 to 18 ....70&5@70&10%
Tinned 19 to 26..... .....70@70&5%
Tinned, 27 to 36.....65&10@70%
Annealed Wire on Spools..... .....70&5@70&10%
Brass and Copper Wire on Spools .....60&5@60&10%
Brass, list Feb. 26, '96.....25%
Copper, list Feb. 26, '96.....15%
Cast Steel Wire.....50%
Stubs' Steel Wire, $6.00 to £.....40%

BRIGHT WIRE GOODS.

List April 1, 1901.....85@85&10%

WIRE CLOTH AND NETTING.

Galvanized Wire Netting....85@85&5
Ptd Screen Cloth per 100 ft $1.00@$1
Light Hardware Grade:
2-8 Mesh, Plain (8c list) sq ft... 1½c
2-8 Mesh, Galv. (8c list) sq ft ...2½c

WRENCHES.

Agricultural.....70&10%
Case lots..... .....75&10%
Acme..... .....60&5%
Baxter's S..... .....60&10%
Bull Dog..... 70%
Coe's Genuine.....40&10&5%
Coe's "Mechanic's"..40&10&10&5&5%
Alligator.....60&10&10%
Bemis & Call's:
Adjustable S..... .....35&5%
Adjustable S Pipe.....40%
Briggs' Pattern..... .....30&10%
Combination Black..... .....40&5%
Combination Bright.... .....40%
Cylinder or Gas Pipe..... .....55%
Extra Heavy..... .....45%
Merrick's Pattern.....50%
No. 3 Pipe, Bright..... .....55%
Bindley Automatic..... ..30%
Boardman's ... .33⅓%
Donohue's Engineer.....40&10%
Eagle.....50&10%
Gem Pocket.....30%
Hercules.....70%
Knife Handle, Machinists' (W & B.): 0&10%
Case lots..... .50&5%%
Less than case lots.....6%
Improved Pipe (W. & B.).....50&10
Solid Handles, P. S. & W.....&10 &
Stevenson..... ... 5%

Wants and Sales.

For yearly subscribers to THE AMERICAN ARTISAN will be inserted under this head advertisements of six lines WITHOUT CHARGE, for employers wishing to secure employes, persons seeking situations, parties desiring to purchase a business, businesses for sale, partners wanted, to exchange, etc. Those who respond to these announcements will please mention that they read the advertisement in THE AMERICAN ARTISAN.

BUSINESS CHANCES.

PATENTS.—H. W. T. JENNER, Patent attorney and mechanical expert, 608 F street, Washington, D. C. Established 1883. I make an examination free of charge and report if a patent can be had and exactly how much it will cost. Send for circular. Member of Patent Law Association.

PATENTS HUBERT E. PECK, 623 F St., N. W. Washington, D. C. Consulting Expert in Patent Causes, U.S. and Foreign Patents. Send for leaflet on "Rejected Patent Applications." Honest work but no "Something for Nothing" offers.

For Sale—A small stock of hardware and harness fittings in the best wheat country in the world. For particulars, address Aiken Bros., Colton, Wash. 11

For Sale—A stock of hardware, tinware, stoves, etc., will inventory about $13,500, doing good business in a town of 5,000 inhabitants. Best of reasons for selling. About 60 miles from Chicago. Will take some trade in the way of small farm or city property. Address "C. J." care AMERICAN ARTISAN, 69 Dearborn St., Chicago. 11

Wanted—A partner in established hardware, stove and tinware business. Nice stock, good trade, best county in the state, good town, population about 500. For particulars, address 110 E. 2nd St., Rushville, Ind. 11

For Sale—A business that has been established for ten years. A stock of hardware, tools and house furnishing goods in first-class condition. Ill health is cause of sale. First-class chance for right party. Address "Box Ten," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 11

For Sale or Trade—Two story brick and steel siding 24x98. Location best in town. Will guarantee rent at $40 per month for ten years. Value of lot and building. $6,000 Will trade for hardware stock, etc. Investigate. Address Box 299, Alden, Minn. 11

Wanted—Stock of hardware, etc. $2,500 to $4,000. Have a splendid modern residence; all conveniences. Chicago best suburb. Steam heat. Everything first-class. Corner lot, 125x165, worth $7,000 to exchange. Will take long time mortgage for difference and make quick deal. Residence now rented for $30 per month. Present tenant will stay indefinitely. Address "Swayze," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 10

For Sale—A $3,500 stock of hardware, stoves, etc., in a thriving Iowa town of 4,000. Stock first-class and trade established seven years. Doing a good business. An excellent chance to step into a paying trade. Shop in connection. Address "Shop," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 10

For Sale—A small stock of stoves, tinware and house furnishing goods with set of plumbers' and tinners' tools. Located in a central Pennsylvania town of about 2,500. A good chance for a party that can do both tinning and plumbing. Enquire of "Plumbing & Tinning," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 10

For Sale—Half interest in a first-class stove repair business in large town. This is a growing business and a first-class opportunity for an energetic young man to get a paying life business. Reason for selling: Have so much business of another nature that I cannot give any time to this. Only about $1,500 required in the deal. Address "Box L," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 10

For Sale—Small hardware and stove store in best of location in old and prosperous Chicago suburb, and enjoying a heavy trade. Will invoice about $2,000. Also large job and cornice shop with set of tinners' tools in splendid condition. Twelve miles from Chicago business center. Best of reasons for selling. Address, "Center," care of THE AMERICAN ARTISAN, 69 Dearborn street, Chicago, Ill. 10

For Sale—Stock of hardware and furniture in a live county seat and R. R. Division town in western Nebraska. Doing a good business. The only new furniture stock in town. Address "Furniture," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 9

Wanted—A good location for hardware store, or buy a small stock in a good lively town in Minnesota or Dakotas. Address, Lock Box 70, Stewartville, Minn. 8

Wanted—To exchange Michigan farm for country hardware. Address, Box 38, Fayette, Ohio. 8

FOR SALE—A good clean stock of Hardware, Stoves, Tinware and Building for Sale or Rent, in a good location in the City of Milwaukee. For full particulars call on or address Wm. Frankfurth Hardware Co., Milwaukee, Wis. 8

TINNERS' TOOLS.

For Sale—One Peck, Stow & Wilcox double Seamer, a new machine, only been used about one year in all. For price enquire at J. G. Widmann, Wanzeka, Wis. 11

Wanted—1 dozen or more second-hand four caster stove trucks. Martin's adjustable preferred. McGrath & Widmayer, Hampshire, Ill. 10

For Sale—A pair of P. S. & W. 30 inch shears and one P. S. & W. 30 inch tin folder. Box 21, Marengo, Ill. 9

For Sale—A stock of tinners' tools, in good condition. Crafts & Montgomery, Wahpeton, N. Dak. 9

For Sale—Set of tinners' tools, square shears included, cheap for cash. List and price on application. Box 332, Edgerton, Wis. 5

For Sale—One Shepard's back-geared, screw cutting, foot-power lathe 13 in. x 60 in., with gap and milling attachment, 3 and 4 jaw chucks and lots of tools, used very little; not a scratch on it; cost $265, will sell for $200. Write for better description to C. A. Bergh, Mondovi, Wis. 5

Set of tinners' tools for sale cheap, in good condition. Send for list. Joe G. Harris, Box 36, Decatur, Adams Co., Ind.

HELP WANTED.

Wanted—A hustling, first-class tinner who understands pump and furnace work Prefer one who speaks Danish language. Cannot promise steady job after Christmas. State wages, reference and experience. Address Lock Box 299, Alden, Minn. 11

Wanted—Tinner. Address W. B. Frymire, Bloomfield, Neb. 11

Wanted—A young genuine American with some experience in store and tinshop. Must have a man at once. Bruns, Lake Mills, Wis. 11

Wanted—A good all-around tinner who understands iron pipe work, hot water heating and furnace work. Must be sober, a hustler, a married man and a German A good job to the right man. Address "Man," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill 10

Wanted—A young man with some experience as tinner, competent to repair old stoves and gasoline stoves, also to do plain bicycle repairing. Steady employment to the right man. State wages and experience. J. B. Sperry, Port Huron, Mich. 10

Wanted—Good, sober furnace man who has had experience in hot water and steam heating, roofing, spouting and understands plumbing. Give age and experience. State wages. Jno. McKinney & Son Co., Piper City, Ill. 10

Wanted—At once: a good tinner who understands hot water, steam and furnace work and has a fair knowledge of plumbing. Will pay good wages and give steady employment to the right man. E. A. Pease, Redwood Falls, Minn. 10

Wanted—A good tinner for all-around work. Steady job to the right man. Bradberry Bros., Hurley, So. Dakota. 10

Wanted—At once; five first-class sheet metal workers. Steady employment to right men. Klauer Mnf'g. Co., Dubuque, Ia. 10

Wanted—First-class tinner who understands pumps and furnace work, and is accustomed to clerk in store. Must be temperate. Steady work, good pay. Colby Mercantile Co., Hamilton, Mo. 9

I want a good first-class tinner to take my place in the shop at once. Must be a good all-around tinner. State time you have been at the trade and give reference. Address Bay Bros., or write me. Good place to work and good wages. B. B. Morrison, 317 South Stee St., Belvidere, Ill. 9

Wanted—An experienced hardware clerk, one not afraid of work, and who can speak German. D. H Stinson, Kendallsville, Ind. 9

Wanted—Mounting shop foreman; have a good position for thoroughly competent man. Thos. Hamilton, Sup't. Joliet Stove Works, Joliet, Ill. 9

Wanted—A high-grade traveling salesman to sell furnaces as a side line on commission. The Forest City Foundry & Mfg. Co., Cleveland, O. 9

Wanted—Salesmen to sell mitres and gutter ends to the jobbing trade only. Good commission. Address Central Mitre Co., 2115 N. Senate Ave., Indianapolis, Ind. 9

Tinner Wanted—Steady employment to hustling young man. Must bring reference. West & Markham, 803 120th St., Chicago, Ill. 9

Wanted—At once: two first-class cornice men and tinners. Steady work. "Booze fighters" need not apply. E. H. Groves, Mgr., 1913 Broadway, Mattoon, Ill. 9

Wanted—At once; a first-class tinner, good on job work; also furnace work. Wages $2.50 per day. Address W. M. Forward Co., Sycamore, Ill. 9

Tinner Wanted—A good No. 1 tinner; to do furnace work, all kinds of tin work and pump repairing. Only first-class, sober workman need apply. M. Reinhardt's Sons, Lincoln, Ill. 9

SITUATIONS WANTED.

Situation wanted—By a young man 21 years old, and am German. Have had 5 years' experience as tinner and hardware clerk, can also repair bicycles and oil stoves. Would like a job as clerk. Nothing but a steady job wanted. Address "Tin," care the AMERICAN ARTISAN, 69 Dearborn St, Chicago, Ill. 11

Situation Wanted—By sheet metal worker. Familiar with heating and ventilating. Can lay out his own work and make plans and drawings where necessary. Address "Box 85," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 10

Situation Wanted—As salesman in hardware where it requires a man of ability and experience. Have had 15 years of actual experience. Can keep books and do shipping. Would prefer a country town. Address "W. H.," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 9

Wanted—Situation as clerk in a hardware store. Have had some experience in tinning. Age 19 years. G. J. Sturm, Flora, Ill. 9

Wanted—Situation, by practical sheet metal worker, 12 years' experience; hardware store preferred. Must be a steady situation, in the city of Chicago only. Address "Steady," care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 9

Situation Wanted—Traveling salesman visiting the jobbing trade and large dealers only, wants a situation side line or otherwise. Address Salesman, care of Central Mitre Co., 2115 N. Senate Ave., Indianapolis, Ind. 9

SPECIAL NOTICES.

WANTED.

Position as bookkeeper or auditor. Have had twelve years' experience. Have lately been manager of large manufacturing firm in Wisconsin. Best of references. Address:

"BOOKKEEPER,"

Care of THE AMERICAN ARTISAN. 11
69 Dearborn St., Chicago, Ill.

WANTED

Permanent situation by an experienced stove manufacturer, as superintendent or manager. Good character. Steady habits and competent. Address,

"Superior,"

care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill.

YOUNG MAN

With good connections in British Isles and Continental Europe wishes agencies for a few lines of American manufacture. Prompt attention. References. Address

MONTAGUE,
39 Paradise Street,
Liverpool, Eng.

SPECIAL NOTICES.

WANTED.

A position as superintendent of manufacturing plant making general line of hardware and electro plated wares. Have had 15 years' experience with one of the largest plants in the United States. Address,

"Wilmington,"

care of THE AMERICAN ARTISAN, 69 Dearborn St., Chicago, Ill. 9

50 Hardware Ads...	50c
50 Bicycle Ads	50c
50 Furnace Ads....	50c
50 Implement Ads .	50c
100 Steel Range Ads	100c

Advertising Pays. Get a copy of these ads which are the best used by us. They increase our trade and will yours. Catchy headlines ready for the printer. Stamps taken. Address

H. P. Townley, Terre Haute, Ind.

People Who Know

Tell us that this hand can be beaten.

In its own line

Lamberson's Hardware Price Book

Can't be beaten. It's the best thing of its kind for hardware dealers.

Pocket Edition,	-	**$4.00**
Office Edition,	-	**$8.00**

DANIEL STERN,

69 Dearborn St., CHICAGO.

Russen Bros.,

Stephen, Minn.,

write:

"We have already received more answers to our advertisement in 'The Help Wanted' column of The American Artisan than we have time to answer, and believe we have secured the man through the same, just the man we want for a tinner. Therefore, please leave it out of the next issue and save us stamps answering same. It has run but one issue."

THE MAN WHO SELLS STOVES

should lose no time in becoming acquainted with

DIXON'S GRAPHITE CEMENT

It is the most effective article in existence for the repairing of firebrick in stoves and furnaces. We will send you sample and prices free for the asking.

JOSEPH DIXON CRUCIBLE COMPANY *Jersey City, N. J.*

Superlative Blackness

has heretofore been denoted by such phrases as "black as Erebus," "black as a black cat on a dark night," "black as the character of Judas Iscariot." Now it is denoted by the phrase: "Blacker than

Black Silk Stove Polish."

No polish is so good and fine as "Black Silk." Write for prices.

Lewis D. Wynn, Sterling, Ill.

To Stove Dealers

NOTICE.

Do you know that the new A-B dealers' stove polish is made dry and you can thin it as you wish. It is the cheapest, blackest, brightest and easiest polish to use—no dust—no rust—waterproof. Keeps in any climate. Put up in 5-lb. boxes—Patented. No tin cans to pay for. Mixes quicker than paste; no drying up, good always. Used by a great many stove manufacturers who are sending duplicate orders. Send for Free Sample and price list; it will save you money.

AYLING BROS.,

Sole Manufacturers and Patentees of A-B Stove Polish

Office and Works, 14 Haddon Ave.,

Address Department A. CHICAGO, ILL.

C&B LINE

Pan-American Route

Between CLEVELAND and BUFFALO.

STEAMERS CITY OF BUFFALO AND CITY OF ERIE.

Both together being without doubt, in all respects, the finest and fastest that are run in the interest of the traveling public in the United States.

TIME CARD—DAILY—APRIL 15th to DEC. 1st.

Leave Cleveland 8 p. m. Arrive Buffalo 6:30 a. m. | Leave Buffalo 8 p. m. Arrive Cleveland 6:30 a. m.

ADDITIONAL SERVICE DURING JULY AND AUGUST DAILY EXCEPT SUNDAY.

Leave Cleveland	8:00 a. m.	Leave Buffalo	8:00 a. m.
Arrive Buffalo	6:00 p. m.	Arrive Cleveland	6:00 p. m.

Leave Cleveland Tuesdays, Thursdays and Saturdays 5 p. m. Arrive Buffalo 5:30 a. m.

Leave Buffalo Mondays, Wednesdays and Fridays 5 p. m. Arrive Cleveland 5:30 a. m.

All Central Standard Time. Orchestra Accompanies Each Steamer.

Connections made at Buffalo with trains for all Eastern and Canadian points, at Cleveland for Detroit and all points West and Southwest.

Ask ticket agents for tickets via C. & B. Line. Send four cents for illustrated pamphlet. SPECIAL LOW RATES CLEVELAND TO BUFFALO AND NIAGARA FALLS EVERY SATURDAY NIGHT, ALSO BUFFALO TO CLEVELAND.

W. F. HERMAN, General Passenger Agent, Cleveland, O.

Good Advertising

Means Constant Advertising.

MONEY spent on this account during periods of prosperity brings its fullest returns in dull times. Don't let your customers forget you simply because you are busy now. Keep your name before the public.

=ER to the best trade in your town by handling **BUCKEYE RAVEN STOVE ENAMEL** for polishing stoves, pipes, and all iron work exposed to heat, and you will make money.

Buckeye Paint & Varnish Co., Toledo, O.

SOLOMON

was no wiser than is the merchant who to-day refuses to use any other but **ORIGINAL STOVE REPAIRS** for his own as well as parts wanted by his customers. Your business will be appreciated in a substantial manner. Original order-book with first shipment.

UNION STOVE REPAIR CO.,
2852-2854 Archer Avenue, CHICAGO.

Repairs For all Stoves

Great Western Stove Repair Co.
MINNEAPOLIS, MINN.

Stove, Range and Furnace **REPAIRS**
OF ALL KINDS.
American Stove Repair Works,
186-188 West Seventh Street, ST. PAUL, MINN.

REPAIRS FOR ALL **STOVES** AND **RANGES.**
A. G. Brauer, 316-318 North Third St., ST. LOUIS, MO.

Champion Stove Clay

The only Stove Lining made of crucible materials.
Packed in 2½ lb., 6 lb., and 10 lb. pasteboard boxes and also in bulk.
Order it from your jobber.
The best and most refractory lining made.

BRIDGEPORT CRUCIBLE CO.
BRIDGEPORT, CONN.

Why not remodel your Oaks and Oval air-tights so as to use cast-iron where you now use sheet steel? More attractive!
Planished and Sheet Steel will be scarce.
The Gobeille Pattern Co., Cleveland, O.

THE GEO. W. COPE STOVE PATTERN WORKS,
Randolph and Jitwater Sts.
DETROIT, MICH.

Experience. Correctness.
Acme Pattern Works
STOVE and HEATER
Patterns
AKRON, OHIO.
Promptness. Satisfaction.

Indianapolis Artistic Pattern Works,
Cor. Fenneman and Minnesota Sts.
INDIANAPOLIS, IND.
Perfect Work. Right Prices.
Special Stove and Furnace Patterns.

CHAPIN & RUE
CHARLOTTE, MICH.,
WRITE....

"We could not get along without The American Artisan, and look for same each Sunday same as we do for our Sunday paper. If the retail dealers would read your paper regular from first page to last as they should, your circulation would increase largely."

REPAIRS FOR ALL STOVES

Pipe Dampers, Mica,
Stove Rods, Paste, Stove Putty,
Stove Knobs, Etc.

Wm. T. Dust Co.,
231 Brush St., DETROIT.

M. Brucker,

Manufacturer and Jobber of

Stove and Range Repairs.

FOUNDRY, OFFICE AND WAREROOMS
325 to 331 North Lincoln St.,
CHICAGO.

J. L. Morris Stove Repair Co.

Wholesale and Retail Dealers in

Stove and Range Repairs, Mica, Etc.

OFFICE AND WAREROOMS
29 and 31 Desplaines Street, Chicago.

Sole Western Agents for BURDETT, SMITH & CO., and other Manufacturers' Original Repairs.

MICA

ASSORTED PACKAGES.

Put up expressly for the Retail Trade.

ONE POUND—4 SIZES. ¼ lb. each size.

North Carolina -	$2.00	4½ x 6	2½ x 3
Wyoming - - -	1.70	2¾ x 3¼	2¾ x 4½

TWO POUND—8 SIZES. ¼ lb. each size.

North Carolina -	$3.75	2 x 3	2¼ x 4
		2 x 4	2¼ x 3½
Wyoming - - -	3.20	3 x 3	2½ x 4½
		3 x 4½	4½ x 6½

THREE POUND—12 SIZES. ¼ lb. each size.

		4½ x 5	2¼ x 4
North Carolina -	$5.20	¾ x 4½	2½ x 3½
		3 x 3	2 x 4
		2¾ x 4½	2¼ x 2¾
Wyoming - - -	4.25	2½ x 3	2¼ x 3½
		2 x 3	5 x 6½

ABOVE PRICES NET. NO DISCOUNT.

EUGENE MUNSELL & CO.,
218 Water St., NEW YORK and 117 Lake St., CHICAGO.

DON ADAMS,

MORNING SUN, IA.,
WRITES:

"I subscribed for your paper one day, and obtained a position the next day."

SELECTED

MICA

ONLY

Prepared expressly for the Stove and Hardware Trade.

Two Grades: "North Carolina" and "Nevada."

Price Lists and Discounts Sent on Application.

The Palermo Mica Co.,
115 BEEKMAN ST., NEW YORK.

ORDER YOUR

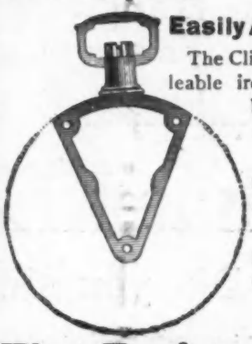
Repairs for Stoves, Ranges and Furnaces

FROM

City Stove Repair Co.
CLEVELAND, OHIO.

We guarantee prompt and careful attention. Send for Order Slips.

The Brohard Damper Clip,



Easily Adjusted

The Clip being malleable iron, will not break in riveting.

Cost no more than all cast.

Sample free to introduce.

Write us.

The Brohard Co.
Phila., Pa.

A. E. Jacobson, Charles City, Ia., writes:

"Please take my ad for situation out, or I will have to hire a stenographer to do my corresponding. I have up to date received eighteen letters and jobs. Will say I could not be without THE AMERICAN ARTISAN."

"Well Bought is Half Sold."

No business proverb could be truer than this one. The hardware dealer comes out on top who gets up-to-date goods suitable to his locality at attractive prices. The Fall Season will soon be here and dealers should stock up. No western hardware *entrepot* can compare with ours. We have the goods—the latest and best. We are in a position to make better prices than our competitors. We can give the dealer unequaled shipping facilities on all orders. We number among our patrons today the leading and most prosperous hardware dealers in Nebraska, Iowa, Missouri, Kansas, Minnesota, The Dakotas, Colorado, Wyoming, Idaho and Montana. We could not hold this trade the way we do if we were not in a position to give them better service than our competitors. If you are not on our list for trade literature kindly send in your name.

Lee-Glass-Andreesen Hardware Co.,
OMAHA, NEB.

Peters Cartridges

Peters Cartridges

"What Kind of Shells

Did you ship me last?"

"Clerk, what shells did you ship our old friend, Mr. Merchant, last week?"

"Shipped him the **'Peters League.'** The boys all liked them so well I was sure they would suit him."

"Sorry, Mr. Merchant, if we did not send what you wanted, but I'll guarantee you will find them all right. Are selling lots of them—none better."

"Hold on, there, Mr. Jobber, you needn't be sorry; but you will be if you ever send me anything but **Peters 'League'** shells hereafter. Why, I have sold them all out already, and the boys won't have any others. Can you ship me more today? Now, mind you, NOTHING BUT PETERS will go in our town."

Handy Book for Shooters and Sportsmen sent free to all applicants.

The Peters Cartridge Co.,
Government Square, Cincinnati, Ohio.
EASTERN BRANCH: T. H. KELLER, Manager, 80 Chambers Street, NEW YORK.

Peters Cartridges

Peters Cartridges

Lackawanna Railroad

The Scenic Line TO New York City

Palatial Solid Vestibuled Trains
Superb Dining Cars
(Meals a la Carte)
Observation Cars **Latest Pullmans**
Elegant Day Coaches

3 THROUGH TRAINS DAILY from CHICAGO 3

Leaving Chicago	Arriving New York
10.35 a. m.	3.35 p. m. next day.
2.30 p. m.	7.30 p. m. next day.
10.30 p. m.	7.10 a. m. 2d day.

Rates $18.00 First Class, $16.00 Second Class

CITY TICKET OFFICE: 103 Adams Street
GEO. A. CULLEN, Gen'l West'n Pass. Agt.
CHICAGO

O. C. Jamison, Homer, Ill., writes: "I FIND MY ADS. IN YOUR ESTIMABLE JOURNAL HAVE BROUGHT GOOD RETURNS."

Not in the Trust.

No Connection with any other Rogers Company.

We guarantee our Plated Ware to strip as much silver as any Brand on the Market.

New Patterns, Highest Grade of Plate.

Simeon L. & George H. Rogers Company.

P. O. Box 1205 Hartford, Conn.

FACTORIES:—Hartford and Wallingford, Conn.

Brilliant Enameled Steel Ware

This ware is now manufactured by our factory at Bellaire in the Brown Color only, same having been discontinued in all colors by our Portland, Conn. factory. Particular effort is being made to turn out a highly satisfactory and pleasing article, and all dealers are requested to order a sample lot to be convinced of the merit of this ware.

White and White Enameled Steel Ware

This ware will also be made by our Bellaire Factory only hereafter having been discontinued by the Portland Factory. A large line of hospital goods made in this ware Recommended where sanitary qualities are essential.

National Enameling & Stamping Co.

BRANCH OFFICES New York Baltimore Chicago St. Louis Milwaukee ADDRESS OFFICE NEAREST YOUR LOCATION

Trade "M&M" Mark

The "M & M" 450 CANDLE POWER ARC LAMP

Trade "M&M" Mark

THE BEST IS THE CHEAPEST.

STORE LAMP. Patented.

Burns 12 to 15 hours with one filling. Diffuses more light than any electric arc. Does not affect your insurance policy. Permitted by all insurance companies. Absolutely non-explosive, odorless and smokeless. Tried, tested and used commercially for three years. Over 25,000 in practical use. One satisfied customer says:

Joliet, Ill., Mch. 22, 1901.
MARTIN & MOORHEAD,
54 W. Washington St.,
Chicago, Ill.

Gentlemen: We used six of these lamps last year and kept an accurate account of the expense. The gasoline cost us $25 and the chimneys and mantels $20.46 making a total cost of $45.46 for six lamps for a year. We believe we have just as good light as though we had had six electric arc lights, which would have cost us $360.

Yours respectfully,
BARRETT HARDWARE CO.

STREET LAMP. Patented.

There are others. We are saving light consumers thousands of dollars every month. We will furnish full particulars on request. Agents wanted in all unoccupied territory. Exclusive territory given. Our Pressure Mantles without an equal for use with any gasoline pressure light

Acorn Brass Works, DEPT. 4, Chicago.

English Pots

Made in 1, 2, 3, 4, 6 and 8 gallon sizes, weighing 5, 9, 13, 14, 23 and 25 pounds, respectively.

We have the largest and best equipped factory in the south for the manufacture of Sad Irons, Country and Stove Hollow Ware. Ground and Unground. Sugar Kettles, English Pots, Cast Iron Shoe Lasts and Stands, Kitchen and Corner Sinks, Grates, &c.

Blacklock Foundry, South Pittsburg, Tenn.

"Eagle" Brand Copper Rivets and Burrs.

STANDARD FOR QUALITY. (Lake Superior Copper.)

—MANUFACTURED BY—

THE PLUME & ATWOOD MFG. CO.,

29 Murray St., NEW YORK. 196 Lake St., CHICAGO, ILL.

The
House Warming Manual
is the Best Heating Book that the World ever knew,

ASK ANY OF THOSE WHO HAVE READ IT.

SOLD BY BOOKSELLERS AT $3.50 PER COPY, OR BY THE PUBLISHER.

DANIEL STERN, 69 Dearborn St., Chicago,

SEND US YOUR ORDER.

100 Tinners' Patterns.

THE AMERICAN ARTISAN

FULL SIZE PATTERNS

Printed on Manilla Paper from which they are readily transferred to Heavy Sheets and cut out ready for use.

The Full Set of 100 Patterns, Price, Sent Postpaid for $1.00.

ADDRESS

Daniel Stern,

Publisher,

69 Dearborn St., Chicago.

Our No. 427.

TO ALL SEEKERS AFTER KNOWLEDGE OF FIRST CLASS TOOLS WE WILL SEND A **GREEN BOOK** OF HARDWARE SPECIALTIES FREE ON APPLICATION.

Smith & Hemenway Co.

Utica Drop Forge and Tool Co.
Thomson Bros. & Co.
296 Broadway, NEW YORK CITY.

Ask Your Dealer for these Goods.

Stanley Rule and Level Co.

IMPROVED CARPENTERS' TOOLS **Sold by All Hardware Dealers**

NEW BRITAIN, CONN.

THE "DISSTON SAW" WILL DO MORE WORK WITH LESS EXERTION AND HOLD ITS CUTTING EDGE LONGER THAN ANY OTHER BRAND OF SAW.

Fully Warranted as to Material and Manufacture.

Henry Disston & Sons, Inc.,
Keystone Saw Tool Steel & File Works.
Philadelphia, Penna.

For Additional Information Send a Postal For Our Pamphlet "Practical Hints To Mechanics."

"ENTERPRISE"

Fruit, Wine *and* Jelly PRESS

Extracts *the* Juice *and* Ejects *the* Skins *and* Seeds in one operation

No. 34. $3.00

Descriptive Catalogue mailed Free — Order through your Jobber

Meat Juice Extractor

No. 21, $2.50

Ice Shredders

		per doz.
No. 33.	Tinned	$6.00
No. 34.	Nickeled	15.00

The Enterprise Manufacturing Co. of Pa., Philadelphia, Pa., U. S. A.

R. B. WARD, Belleville, Kas., writes:

"Please take my advertisement, 'Tinner Wanted,' out of THE AMERICAN ARTISAN. Your paper certainly reaches the craft. I cannot find time to answer all the applications coming in."

JOHN PORTER, ALTOONA, PA., Writes: "I can't run my shop without THE AMERICAN ARTISAN."

LISK'S

Extra Heavy 30 and 40 Quart Retinned Stamped

Dish-Pans

Made of Best Quality IXXXX and IXXXXXX American AAAAA Open Hearth Charcoal Plate, Coated with Our Anti-Rust Composition and Two Heavy Coats of Pure Tin

WARRANTED NOT TO RUST.

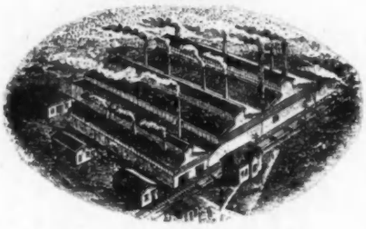
Wired with No. 7 Coppered Wire; Extra Large, Heavy Lisk Patent Handles.

MANUFACTURED SOLELY BY

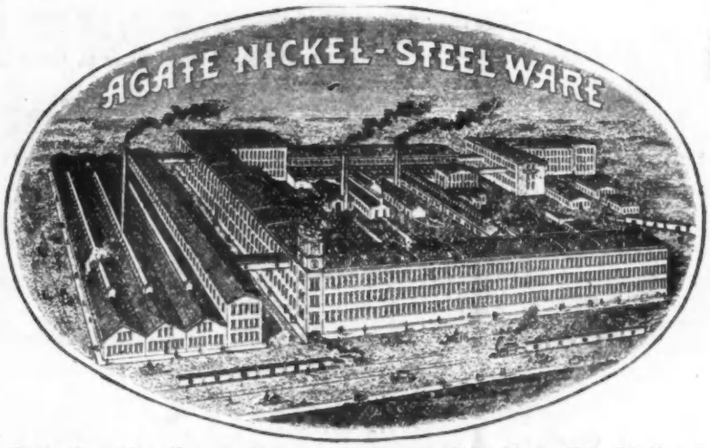
The Lisk Manufacturing Company, Limited,

CANANDAIGUA, N. Y.

Trade AGATE NICKEL-STEEL-WARE L&G MFG. Co. Mark.



Rolling Mills, Harrisburg, Pa.



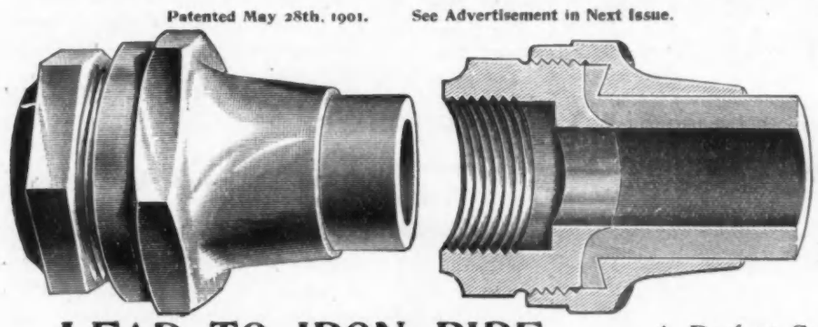
Factories: Woodhaven, Borough of Queens, New York City, N. Y.

The Largest Plant on earth for manufacturing enameled and sheet metal wares. The home of the **"Agate Nickel-Steel," "Pearl Agate." "Peerless"** and **"Blue and White" Wares,** and the celebrated **"L. & G." Steel Sinks, Plain and Retinned, Shallow and Deep Stamped, Japanned and Pieced Tinwares, Spoons, Milk Cans, Etc.**

Lalance & Grosjean Mfg. Co.

MAIN OFFICE:	WESTERN BRANCH:	EASTERN BRANCH:
19 & 21 Cliff Street,	81-83 Michigan Ave.,	83-91 North Street,
NEW YORK.	CHICAGO.	BOSTON.

Patented May 28th, 1901. See Advertisement in Next Issue.



Novelty Couplings

Lead to Lead and Lead to Iron or Copper.

LEAD TO IRON PIPE. A Perfect Substitute for Wiped Joints.

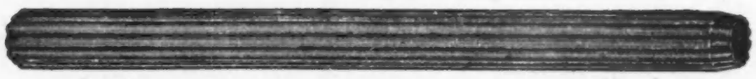
Water Back, Faucet, Boiler Couplings, Etc.

SEND FOR COMPLETE CATALOGUE

The New Haven Novelty Machine Co., New Haven, Conn., U.S.A.

PLECKER'S CORRUGATED EXPANDING CONDUCTORS.

Made of Galvanized Iron in Ten-Foot Lengths without a Cross Seam. Will not burst when full of ice.



Clark, Quien & Morse, - Peoria, Ill.

THAT PAPER IS THE CHEAPEST WHICH BRINGS THE BEST RESULTS IN PROPORTION TO ITS RATE, NO MATTER WHAT THAT RATE MAY BE.

THE ORIGINAL **BRAMMER Rotary Washer.**

An especially well made and light running machine and GUARANTEED TO GIVE SATISFACTION.

A simple, powerful and durable movement. This very substantial tub is made from a select quality of Cypress lumber.

Made also in the detachable leg style, as well as square.

We manufacture the most complete and satisfactory line of Washers on the market. Send for illustrated catalogue.

BENBOW-BRAMMER MFG. CO.,
1007 N. 13th Street,
FACTORIES: St. Louis, Mo., Davenport, Ia. **ST. LOUIS, MO.**

Gee Whizz Washer

A Novelty and a Winner.

Does what it is intended and guaranteed to do.

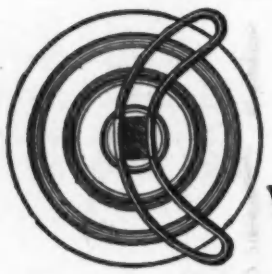
Made without hoops or staves, will neither shrink, leak nor fall down. The labor saving washer of 20th Century. Our circular describes the reflex motion and tells why it whirls, rubs, slaps, squeezes and sucks the dirt out of the clothing.

You want the agency.

Write for particulars to

RANDLEMAN & SONS, Des Moines, Iowa.

THE Peerless Flue Stopper



Steel wire springs instead of sheet iron stays.

Stays where you put it, and is absolutely soot and smoke proof.

Made either plain or decorated.

Send for miniature sample and prices.

Welling Manufacturing Co.,
Columbus, O.

BIG FOUR ROUTE

Chicago to { Indianapolis, Cincinnati, Louisville, the South and Southeast

Peoria, St. Louis, Indianapolis, Cincinnati, Louisville } To New York AND The East

W. P. DEPPE, A. G. P. & T. A. W. J. LYNCH, G. P. & T. A.
CINCINNATI.

J. C. TUCKER, G. N. A., 234 Clark St., Chicago

THE ORIGINAL **H. F. Brammer Mfg. Comp'y**
(Incorporated 1888) DAVENPORT, IOWA.
MANUFACTURERS OF

The Original Improved Brammer Washer.
The Original O. I. C. Pendulum Washer.
The Original O K Rotary Ball Gearing Washer.
With Gold And Copper Bronzed Hoops And Castings.

WE LEAD. Others imitate. The superiority of our Washers is too well known, and dealers will not be misled by similar machines.

Quotations and particulars will be sent on request.

The Southern Railway and The Mobile and Ohio Railroad

through its Land and Industrial Department invite prospectors, investors, manufacturers and homeseekers to investigate propositions in all lines.

Come and see what splendid opportunities the South affords. Reading matter, maps and detailed information sent free upon application to

M. V. RICHARDS, Land and Industrial Agent, Washington, D. C.
W. L. HENDERSON, Agent, Land and Industrial Dept., St. Louis, Mo.
J. F. OLSEN, Agent, Land and Industrial Dept. 225 Dearborn St., Chicago.

Send 10c. in Stamps for Free Sample of **"Solid-Steel" Lava Enameled Ware.**

The Cleveland Stamping and Tool Co., CLEVELAND, OHIO.

The Mighty Mite Camp Outfit.

Size, 9x8½x4 inches.

No. 4, for four persons, contains 33 pieces.
No. 6, for six persons, contains 44 pieces.

It is the smallest, neatest, and most compact camp outfit ever made.

Edw. E. McMorran & Co.
Manufacturers,
15-21 N. Clinton St., CHICAGO.

The Power of Advertising.

No business can be successfully founded or continued without the aid of advertising. Good and convincing advertising is as essential to the winning of business success as a fresh and desirable stock of commodities in the store. It makes the merchant and his goods known, and brings purchasers to his establishment.

C. R. SIPES, Arkansas City, Ark., writes: "We could hardly keep house without The American Artisan."

Favorite Gas Stove.

WILL NOT BLACK OR SMOKE.

The Cheapest, Best and most Profitable on the market. Write for prices.

Favorite Novelty Co.,
139 Beaubien St.,
Detroit, Mich.

HEATING MILK FOR THE BABY.

Iwan's Perfection Wire Conductor Pipe Hanger.

Best Hanger Ever Invented.

Why It Is The Best:
1st. It holds pipe one inch from building to permit painting.
2d. It looks ornamental.
3rd. It can be used for frame or brick buildings.
4th. It can be used for round or corrugated pipe.
5th. It completely encircles the pipe, holding it firmly on all sides
6th. It is strong and durable.
7th. It is cheaper than any other hanger.
8th. A tinner can put up more pipe in less time than with any other hanger.

The hanger can be tightened as desired by giving the eye a twist. For 2-inch corrugated pipe 2½ inch hanger is required. Other pipe runs uniform.

Also Manufacturers of Iwan's Chimney Top.

Write for Discounts.

Iwan Bros., Mfrs. of Hardware Specialties, Streator, Ill.

Artificial Light Revolutionized!

Merkel's Simplicity Incandescent Vapor Light.

An absolutely safe light.

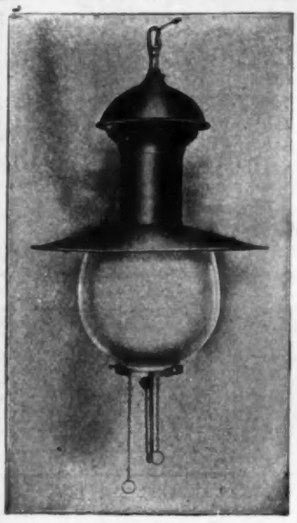
Highly polished brass with gold finished ornament. **WALL LAMPS** Absolutely cheaper than gas or electricity.

THIS lamp consumes about one pint of gasoline in six to eight hours, and with the improved mantle produces a soft, steady and very brilliant white light, from 80 to 100 candle power. The Merkel Simplicity Light will not smoke or discolor ceilings.

Send for catalogue. Manufactured and patented by

H. MERKEL,

513-515 Elm Street, ST. LOUIS.



ELECTRICITY? NOT MUCH!!!

It's the wonderful one-gallon

DORAN LIGHT.

Equal in every way to an Electric Arc Light at one-tenth the cost.

They can be turned up or down at will and are the most diffusive lights on the market today.

RESPONSIBLE AGENTS WANTED IN EVERY TOWN WHERE WE ARE NOT REPRESENTED.

THE SALE OR RENTAL OF DORAN LIGHTS WILL GIVE YOU AN INCOME OF FROM $200 TO $1000 PER MONTH.

Mr. W. C. Coleman, of Fort Worth, Texas, who has several offices throughout the west, says, under date of July 7th, 1901—"I have an income of $1000 per month after having handled your lights for two years."

We protect our representatives in the territory that we assign them.

Send for catalogue and descriptive matter.

ACORN BRASS WORKS, Dept. H, Chicago, Ill.

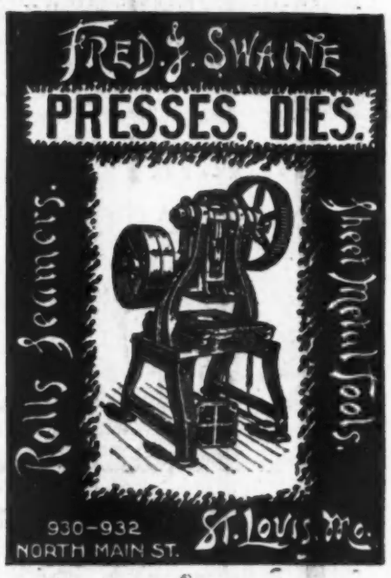
THE ARRAS CREAM SEPARATOR

Separates cream from milk thoroughly without dilution and no machinery. The most convenient device for handling milk, winter and summer, on the market.

A Sure Seller sold only to one dealer in each town.

Write for prices and descriptive catalogue to

The Arras Cream Separator Co.
Bluffton, Ohio.
Pat. May 21, 1901.



H. Koch & Son, New Baden, Ill., Write:

"Please discontinue our advertisement, for we have more inquiries than we can answer; besides, we are very thankful, having now a man to fill the position O. K. We will always remember

The American Artisan

and would not be without same"

A TRIAL WILL CONVINCE YOU THAT

MORE'S REVERSIBLE CORN POPPER.

"POPS THE CORN WITH OR WITHOUT THE SEASONING"

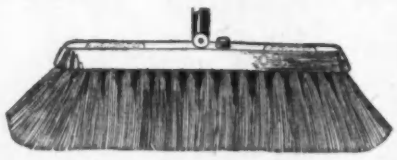
Sells Best, Because it meets all Requirements.

Made double to answer the purpose of two poppers; one side is made of wire, to be used when the corn is preferred popped dry (as in the ordinary popper). **The other side is made of steel,** to be used when the corn is preferred popped in the seasoning (like Grandma popped in the kettle). If your jobber will not supply you with these and my other specialties, write the manufacturer,

C. A. Chapman, 279 Exchange St., Geneva, N. Y.

Van Deusen Cake Molds and Egg Whip, "Crusty" Bread Pan.

Sell it in your town



THE WORLD'S ONLY

Sanitary Dustless Floor Brush

Solves the problem of dustless sweeping. It sweeps perfectly, economically, rapidly, without raising the lighter dust. Dust simply cannot rise—it's the way the brush is built. Sell it in your town. For particulars address

Milwaukee Dustless Brush Co., Milwaukee, Wis., 122 Sycamore St.

Standard Chain Company.

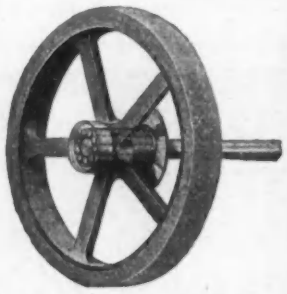
Chain of all Kinds.

Pittsburgh, Pa.

Look Right Into The Heart

of it, Simple—Durable—Practical.

Cut shows a transparent view of our new dust-proof "Roller Bearing," so that you may see how very simple it is. No complicated or delicate parts to wear out or get out of order.



National "Roller Bearing" Carpet Sweepers

are fitted with this bearing, which reduces friction to the minimum, and makes them at least 50 per cent. easier running. Each sweeper packed in a card board box.

WRITE NOW FOR OUR SPECIAL FALL OFFER. IT WILL INTEREST YOU.

National Sweeper Company,

1902 PARK ST., - - MARION, INDIANA.

WHY YOU SHOULD USE A No. 5 FIRE POT.

It is light, strong, and can be easily carried.

It produces a strong blue flame which is intensely hot and free from smoke. The flame can be regulated as the user desires.

A kettle of metal and a pair of coppers may be heated at the same time.

$4.50 net.

The burner hangs on a swivel joint and can be pointed up or down.

The op section may be removed, exposing *the open fire, which can be used as a torch.* The flame then may be applied direct to the point where heat is desired.

It is unequalled in thawing frozen pipes, taking small pipes apart, making overhead or upright joints, flowing bath plugs, or any similar work.

There are many other advantages which will suggest themselves to you.

It requires but little gasoline to do a large amount of work, and will save you its cost in the saving of gasoline lone in a short time.

When you buy get the best there is. If it bears our name it means your money back if you are not pleased.

Jobbers sell at factory price, or we ship direct on receipt of $4.50

Clayton & Lambert Mfg. Co., Detroit, Mich., U.S.A

Just a Little Higher

in price, but so much

HIGHER IN QUALITY

that the great majority of dealers prefer to sell

Caldwell Sash Balances

They can recommend them with clear conscience. Write for catalog.

Caldwell Mfg. Co.

2 Jones St., Rochester, N. Y.

PERFORATED METAL

THE ROBERT AITCHISON PERFORATED METAL CO. 303-305 DEARBORN STREET CHICAGO ILL.

F. J. Brazda, Dodge, Neb., writes

"Please take 'Flanders circular shears' out of my 'for sale' ad. I sold them two days after they were advertised. As an advertising medium The American Artisan stands ***First*** in its class."

OLD DOMINION

Horse, Mule Shoes.

All the popular styles and weights.

Illustrated catalogue and prices on application.

Old Dominion Iron and Nail Works,

ARTHUR B. CLARKE, Prest. **Richmond, Va., U.S.A.**

TACKS

TOWER M'F'G. CO.
ELM & FRONT STS.
CINCINNATI, O
MANUFACTURERS

Our "Confidential" Catalogue No. 115

Intended **exclusively** for the Legitimate

Hardware Trade,

Contains a bargain list of merchandise bought by us at

Sheriffs', Receivers' and Manufacturers' Sales.

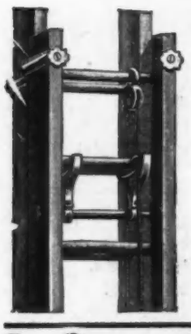
Write for it to-day.

Chicago House Wrecking Co.,
West 35th and Iron Sts., CHICAGO.

Sperry's Steam Kettles.

Made from very thick metal, without Stay Bolts, Joint packed in such a manner as to never need repacking. A little higher-priced than some, but they are safe and tight.

D. R. SPERRY & CO.,
HOLLOW-WARE FOUNDERS,
.....BATAVIA, ILL.



Perfection Extension Ladder

PATENTED JULY, 1896.
One Endless rope operates it.
Rope can be changed to either side.
No rope or fixtures in the way.
Catch irons operate by gravity.
No springs to get out of order.
Spruce wood sides and Hickory rungs.
SEND FOR CIRCULAR.

Made By . . **BERGER BROS. CO.,**
231 and 237 ARCH ST., PHILADELPHIA.
Mfrs. Tinners' and Roofers' Supplies.

Bradner Smith & Co.

Paper Makers,

CHICAGO.

BUILDING,
WRAPPING,
WRITING,
NEWS,
BOOK

Paper

Send for Catalogue.

A Special Hardware Wagon.

Low Down.
Short Turn.
High Wheels.
Saves the Heavy Lifting.
Makes Quick Delivery.
For Prices, Terms, &c., Address,

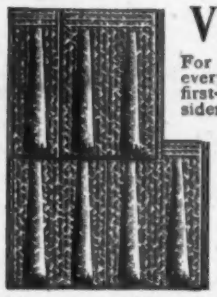
SHIPMAN, BRADT & CO., 305 North 3d St., DE KALB, ILLS

S. C. SMITH, President — WM. BRAY, Treasurer — B. W. RIBBLE, Secretary
The East Bangor Consolidated Slate Co.
.... MANUFACTURERS OF ....
Laundry Tubs, Burial Cases, Urinal Stalls, Tiles, Genuine Bangor Roofing Slate and General Structural Slate.
EAST BANGOR, PENNSYLVANIA.

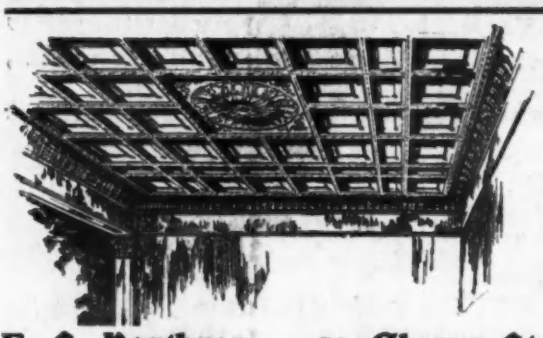
WILLIAMS & JOHNSON, Farmer City, Ill., write: ..... "Please take out our ad. for a tinner, as we are supplied. Have been literally snowed with replies and want the 'avalanche' stopped."

If
You Want
The Latest Designs,
and
Best Fitting
METAL CEILINGS
On The Market,
We Make Them.
Also
Cornice, Skylights,
Eaves Trough, Conductor Pipe.
J. H. ELLER & CO.,
Canton, Ohio.

The Powers Automatic Chimney Top
IS BEST ON EARTH.
Is only one with brace adjusting and holding cover. Is most perfectly and scientifically made. Is more used than all others combined. Sold by Leading Hardware Jobbers and Dealers. Made only by
POWERS BROS.,
STREATER, ILL.
Write for Prices, Etc.
Irons only or Complete.



VICTOR
For public buildings of every character where first-class roofing is a consideration, our galvanized
VICTOR SHINGLE
is unequalled.
Deeply embossed.
Presents attractive appearance.
Telescope Side Lock.
Catalogue fully describes them.
Montross Metal Shingle Co.,
CAMDEN, N. J.



Hardware Dealers Can Handle Northrop's Stamped Steel Ceilings
and do well for their customers and themselves. Send for catalogue—give diagram and description of room for an estimate and we will do the rest.
H. S. Northrop, 53 Cherry Street, New York.

The "Centennial" Rain-Water Cut-Off.

The strongest, most durable and cheapest CUT-OFF on the market.
The only single Cut-off made to fit CORRUGATED and Plain Pipe and which can be used without extra pipe or elbows. For sale by all leading jobbers.
Patent applied for.
Manufactured only by
COONEY & GEICER,
19 & 21 E. South St., INDIANAPOLIS, IND.

"Sampson Brand" Pure Asphalt Roofing.
Never Dries Out or Cracks.
Planet Brand Tarred Ready Roofing, Slaters' Felt, Building Papers, Roofing Cements, Paints, Etc.
Write us for prices. J. L. Perkins & Co., 241 Lake St. CHICAGO.

Garry Iron and Steel Roofing Co.
Roll Roofing.
Corrugated Iron.
Metal Shingles.
Clap-boards.
Siding.
Steel Bricks.
Window Casings.
Fire-Proof Shutters.
Eave Trough.
Conductor Pipe.
Elbows.
Cornice.
Skylights.
Finials.
Cor. Coe and Lake Streets,
Cleveland, Ohio.

BURTON'S
Fuel Economizer
Prevents Waste of Heat and Fuel
Well Advertised Sells Easily
Large Profits to Dealers
We Protect Dealers
Write for Catalogue, Price and Testimonials.
W. J. Burton & Co., The Quick Shippers
164-166 W. Larned Street, DETROIT, MICH.

Crying to do business without advertising is like winking at a girl in the dark; you know what you are doing but nobody else does.

CAN'T CARRY IT WITH HIM

When he dies, but in the meantime your customer will be much safer if our Fire Proof Ceilings and Side Walls are used. They don't leak, they don't burn.

In Eaves Trough, Conductor Pipe, Cornice, Fire Proof Doors and Shutters, Skylights, Hangers, Tin Plate, etc., we are making a very superior line of goods. Write for catalogue of designs and prices.

The Canton Steel Roofing Company,

NEW YORK AGENCY,
157 W. 23rd STREET.

CANTON, OHIO.

269-Q

JAMES A. MILLER & BRO.
129 So. Clinton St.,
CHICAGO.
Correspondence Solicited.

Corrugated and other
IRON ROOFINGS.
SKYLIGHTS,
CORNICES,
CONDUCTOR PIPES,
GUTTERS, ETC

Send your orders to us. We have a large stock and guarantee prompt shipments.

We manufacture

Roofing, Siding, Ceilings, Eaves Trough, Conductor Pipe and Trimmings, Tin Plate, Solder and Sheet Iron

La Crosse Steel Roofing & Corrugating Co. La Crosse, Wis.

The Perfection Rain-Water Cut-Off.

EXCELS ALL OTHERS IN SIMPLICITY—STRENGTH—DURABILITY.

Klauer Mfg. Co.

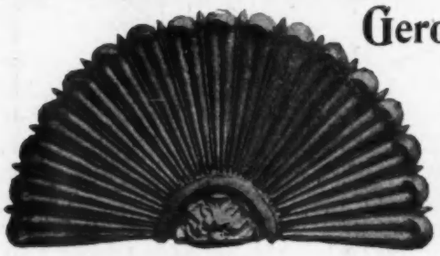
SOLE MANUFACTURERS,
DUBUQUE, IA.

SUCCESSORS TO W. A. SMITH & CO., PATENTEES, LIMA, O.

ROOFING SLATE

Bangor Union, Sea Green, Purple, Maine, Red, Unfading Green, Peach Bottom, Penna. Black.

AULD & CONGER
MF'G'S. AND DEALERS,
CLEVELAND, O.



Gerock Bros. Mfg. Co.

1252 MANCHESTER AVE.,
ST. LOUIS, MO.

Zinc and Copper Ornaments. Steel Ceilings. Skylights and Ventilators.

Catalogue on application.

Faith in Advertising.

WITHOUT newspaper announcements no man who has commodities to sell or services to render can achieve as high a degree of success in business as he could with judicious advertising; and the success which newspaper publicity brings is worth many times its cost. A leading merchant of Syracuse (New York) says: "Most of the owners of large mercantile establishments who use newspaper space had their start under the same conditions that nine-tenths of the small merchants work under. They have had faith in advertising and the courage to buy space."

Elbert Stebbins
Dixon, Ill.
Writes:

"Allow me to express my opinion of THE AMERICAN ARTISAN.

I can honestly say that is the best paper printed on the subject.

I highly recommend it to all interested in general tinsmithing."

The "Star" Ventilator

GALVANIZED IRON, COPPER.

STORM PROOF. EFFECTIVE.

For Ventilating Churches, School Houses, Public Buildings, Residences, Barns; also, Cotton and Woolen Mills, Machine Shops, Foundries, Dye Houses, and Factories of All Kinds.

The Combination Skylight "Star" Ventilators gives light as well as ventilation. Write for booklet illustrating the Ventilator, and which contains full information regarding the merits of this device. Prices Named on Application.

Merchant & Co., Inc.

PHILADELPHIA
NEW YORK
CHICAGO
BROOKLYN

SOLE MANUFACTURERS OF STAR VENTILATORS, METAL "SPANISH" TILES, "GOTHIC" SHINGLES, HIGH GRADE ROOFING PLATES.
WRITE FOR FULL INFORMATION.

American Tin Plate Company

MANUFACTURERS . . . . .

Tin Plate
Terne Plate
. . . and . . .
Black Plate

GENERAL OFFICES: Battery Park Bldg. New York.

Keep Up With The Procession.

Whether you do so or not depends largely upon what Metal Ceilings you handle. The wrong ones will lose you trade and prestige where the right ones would help you win them. The right ones are

"Berger's Classik" Metal Ceilings

The dealer who handles them has substantial inducements to offer his trade.

1. Greater variety of patterns to choose from.
2. Handsomer and more artistic designs.
3. Deeper stamping.
4. Complete Classified Designs, in harmony throughout.
5. Valuable constructional features, reducing number of joints, and facilitating handling and erections.

Write for Catalogue No. 7 and learn what we can do for you.

GET IN LINE FOR 1901. - - - ARE YOU WITH US?

The Berger Mfg. Co.

CANTON, OHIO.

NEW YORK OFFICE: 210 E. 23rd St., New York, N. Y.
NEW ENGLAND BRANCH: 176 Federal St., Boston, Mass.
PHILADELPHIA OFFICE: 1013 Arch St., Philadelphia, Pa.
WESTERN BRANCH: 19 and 21 Main St., St. Louis, Mo.

SPECIALTIES: Ceiling, Roofing, Siding, Eave Trough, Conductor Pipe, Hangers, Etc., Etc.

It is made of Steel.

White Tile Top.

Tin or Brass Scoop.

Brass Dial.

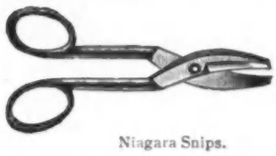
IMPROVED
YOUNG AMERICA SCALE.
BEST IN THE WORLD.

A most beautiful and attractive scale for all purposes. Beautifully enameled, ornamented and striped. Weighs 20-pounds by ounces. Occupies but little space. Is light and easily moved. It can be regulated by turning the brass screw on top. It is always ready and easily understood. It is a convenient scale to use and has no weights that may be lost. You can look this one in the face to prove its accuracy without looking for weights. Every scale examined before leaving the factory and warranted correct.

MANUFACTURED BY

AMERICAN CUTLERY CO., CHICAGO, ILL.

Tools for Sheet Metals



Niagara Snips.

Tinsmiths' Roofers' Cornice Makers' } TOOLS

SHEARS, PRESSES and DIES, PUNCHES, ROLLS

Made by

Niagara Machine and Tool Works

BUFFALO, N. Y.

Send for Catalogue B

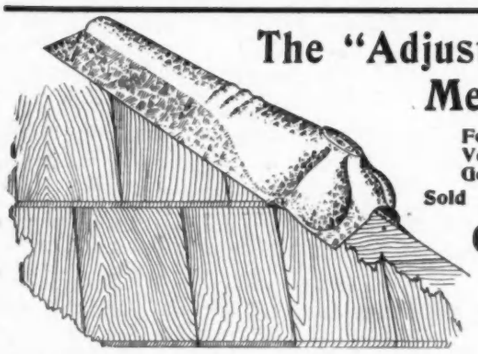
HOMESEEKER EXCURSIONS

On First and Third Tuesdays in each month to

VIRGINIA,

Via NORFOLK & WESTERN RAILWAY.

For all information as to RATES and TICKETS and for LAND PAMPHLETS and descriptive matter address ALLEN HULL, D. P. Agt., Columbus, Ohio



The "Adjustable" Stamped Metal Hip Shingle.

For Shingle or Slate Roofs.
Very Ornamental.
Good Sellers.
Sold to Dealers Only. Mfd. by

Galesburg Cornice Wks.

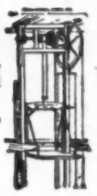
GALESBURG, ILL.

WRITE FOR DESCRIPTIVE CIRCULAR.

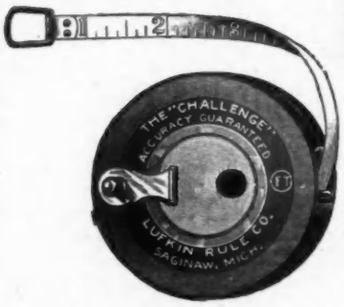
ELEVATORS

Improved, Quick and Easy Rising Steam and Hand Power.

Kimball Bros. Co.
1061 9th Street
Council Bluffs, Iowa
Omaha Branch,
108-110-112 North 11th St.



Crying to do business without advertising is like winking at a girl in the dark; you know what you are doing but nobody else does.



Measuring Tapes

Steel, Metallic, Linen, etc. Our Goods are Recognized as the Best. Tinners' Rules, Magic Pattern Rules, etc. Send for Catalogue and Mention The American Artisan.

Lufkin Rule Co.

SACINAW, MICH.

CLASSIFIED METAL CEILINGS

'Tis a pleasant subject, and a profitable one, too. Has it ever been presented to you? We should like to take it up with you. It means money. Catalogue free.

Illinois Roofing & Supply Co.,

23 Lake Street, Chicago.

The Builder may save a few dollars on an operation that would have given twice as much roof satisfaction by using Cortright Metal Roofing, but he's not in anything if that man ever has another house to build.

CORTRIGHT METAL ROOFING CO.,
50 N. 23rd St., Phila.

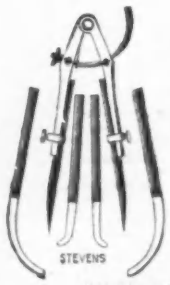
Don't Be Deceived but insist on

McClure's Genuine Charcoal Iron Redipped Roofing Tin.

McCLURE & CO.,
Manufacturers of Tin Plate,

PITTSBURGH, PA., 211, 213 and 215 Second Ave.
PHILADELPHIA, PA., 115 North 7th Street.

STEVENS



ALL STEEL TOOLS ARE STANDARD.

They are very popular with machinists, and dealers find them profitable goods to handle. If you do not carry them on your shelves it will pay you to put in a complete line.

All leading jobbers handle our complete line.
Send for our catalog, full of valuable information.

J. STEVENS ARMS & TOOL CO.
No 245 Broadway, CHICOPEE FALLS, MASS.

Furnace Men's Supplies

Registers At old list and discount.

Hot Air Pipe Excelsior Standard Wall Pipe.
Excelsior Standard Round Pipe.
Excelsior Sectional Double Wall Pipe.
Michigan Safety Double Wall Pipe.

Cement Pecora and Crown.

Asbestos Paper 10 and 14 lb. to sq. yard.

Heater Pipe Sizes: 20x28, 130 lb., 190 lb., 200 lb. IC, IXL, IX, 2 X.
20x26, IC, 19¼x28, IC.
20x29½, ICL, IXL
20x32½, ICL, IXL, IX.
20x39, IXL, IX.

The J. M. & L. A. Osborn Co.,
26-36 THE VIADUCT, CLEVELAND, O.
Columbus Address, 39 Vine St.

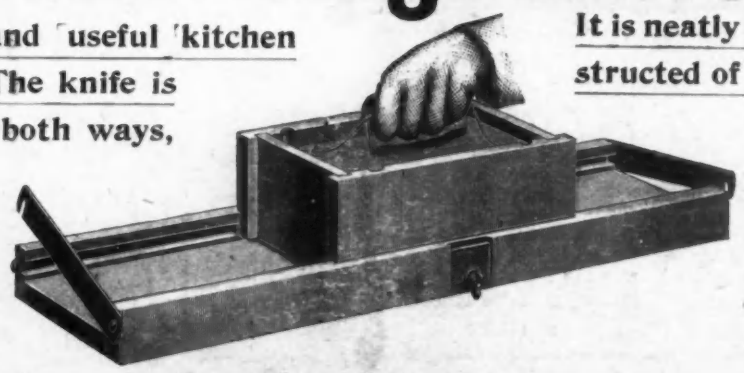
We Solicit Your Orders
FOR
Sept., Oct. & Nov. Shipments

Ic 28X20 ternes, all weights.
Ic 28X20 coke tin, full weight.
200lbs.
190 lbs.
180 lbs.
160 lbs.
Galvanized Sheet Iron
Black Sheet Iron
Solder, Wire, Zinc, Etc.

N. & G. TAYLOR CO.,
MANUFACTURERS TIN AND TERNE PLATES.
PHILADELPHIA.

The Queen Vegetable Slicer

The most complete and useful kitchen article of the day. The knife is double edged, cutting both ways, and will do more and better work than any three-knife slicer on the market.



It is neatly and substantially constructed of the best material and will last a life time. The knife can be removed when dull and sharpened, and is very easily adjusted to cut thick or thin slices.

E. C. Atkins & Co., Indianapolis, Indiana.

Branch Houses: Memphis, Tenn. Minneapolis, Minn, Atlanta, Ga. Portland, Ore. New York City.